U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-297 039

Areawide Waste Treatment and Water Quality Management Planning. Appendix D Areawide Management Strategy for Water Quality

Greater Egypt Regional Planning and Development Commission, Carbondale, IL

Prepared for

Environmental Protection Agency, Chicago, IL. Region V

Nov 78

BIBLIOGRAPHIC DATA SHEET	1. Report No. GERPDC-78-497	2.	3. Recipient's Accession No. PB297039
4. Title and Subtitle Areawide Waste Treatment and Water Quality Management Planning Areawide Management Strategy for Water Quality, Appendix D			5. Report Date November 1978 6.
7. Author(s)			8. Performing Organization Rept. No.
9. Performing Organization Name and Address Greater Egypt Regional Planning and Development Commission P.O. Box 3160 Carbondale, IL 62901			10. Project/Task/Work Unit No. 11. Contract/Grant No. P005225-01
12. Sponsoring Organization Name and Address U.S. Environmental Protection Agency Region V 230 South Dearborn Chicago, IL 60604			13. Type of Report & Period Covered Final 14.

15. Supplementary Notes

16. Abstracts

The Areawide Management Strategy for Water Quality is Appendix D of the Areawide Waste Treatment and Water Quality Management Plan for Southern Illinois. The Report was prepared under Section 208 of the Water Pollution Control Act, as amended. The Report addresses the management issues surrounding the 208 Plan. A summary of Plan recommendations, detailed agency designation information, and the proposed areawide management structure, authorities and responsibilities are discussed, along with costs.

17. Key Words and Document Analysis. 17a. Descriptors

Water quality, water pollution, facility planning, agriculture, coal mining, mining, mine wastes, municipal waste water, wastewater treatment, erosion, water supply.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Availability Statement National Technical Information Service U.S. Department of Commerce Springfield, VA 22151	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 75
	20. Security Class (This Page) UNCLASSIFIED	22. Price A04-A01

FORM NTIS-35 (REV. 3-72) THIS FORM MAY BE REPRODUCED USCOMM-DC 14952-P72

GREATER EGYPT REGIONAL PLANNING & DEVELOPMENT COMMISSION

608 east college st. / carbondale, illinois / area code 618 549-3306
mailing address: post office box 3160 / carbondale, illinois / 62901

November 1978

Michael P. Mauzy
Acting Director
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Dear Mr. Mauzy:

The Commission is pleased to transmit Appendix D, Areawide Management Strategy for Water Quality of the 208 Areawide Waste Treatment and Water Quality Management Plan for Southern Illinois. The plan and this document cover the ten Illinois Counties of Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Perry, Pope, Saline, and Williamson.

This technical report is an integral part of the Southern Illinois Water Quality Management Plan that is designated to meet the contract requirements of Federal Grant Number P005225-01 under the U. S. Water Pollution Control Act Amendments of 1972, as administered by the United States Environmental Protection Agency.

We trust this submittal of this report, as well as the others comprising the plan, will provide the basis for certification of the plan and continued designation of this area.

Sincerely,

A. S. Kirkikis

A. S. Kirkikis
Executive Director

ASK:db

II

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TABLE OF CONTENTS

		Page
	INTRODUCTION	i
Chapter 1 -	WASTE TREATMENT AND WATER QUALITY AGENCY DESIGNATION	1
	Regional Water Quality Council	1
	Responsibilities of the Regional Water Quality Council	4
	Powers of the Regional Water Quality Council .	5
	Financing of Regional Water Quality Council .	6
	Designation of Management Agencies	8
Chapter 2 -	ALTERNATIVE MANAGEMENT SYSTEMS - RATIONALE FOR RECOMMENDED MANAGEMENT AGENCIES	23
	Alternative Institutional Structure	24
Chapter 3 -	OVERVIEW OF MANAGEMENT RECOMMENDATIONS	35
	Functional Area Management Recommendations . .	37
	Scheduling and Costs of Management Recommendations	61
Chapter 4 -	STRATEGIES FOR PLAN IMPLEMENTATION	63

LIST OF TABLES AND FIGURE

Figure 1 -	Proposed Organizational Structure	7
Table 1 -	Designation Detail For Facility Planning Areas	16
Table 2 -	Designated Management Agency Responsibilities .	36
Table 3 -	Southern Illinois 208 Areawide Mine Waste Program, Summary of Mine Waste Reclamation Program . . .	40
Table 4 -	Municipal Wastewater Facilities: Priority Ranking and Capital Scheduling	46
Table 5 -	Southern Illinois 208 Water Quality Program, Summary of Program Costs	62

INTRODUCTION

The Water Pollution Control Act Amendments of 1972 (P.L. 92-500) authorize under Section 208 the designation of agencies to conduct areawide waste treatment management planning for areas having substantial water quality control problems. Three areas in the State of Illinois were formally recommended for designation by the Governor of Illinois in 1975: the six-county northeastern Illinois region; three of the Illinois counties of metropolitan St. Louis; and the ten-county region in southern Illinois.

The Greater Egypt Regional Planning and Development Commission, acting as the lead agency, and the Southeastern Illinois Regional Planning and Development Commission were designated as the planning agencies to conduct the areawide waste treatment management planning in the ten counties of Franklin, Gallatin, Hamilton, Hardin, Jackson, Jefferson, Perry, Pope, Saline, and Williamson.

The impact of coal mining and agricultural practices on the Region's water quality, together with the influence of municipal and non-mine related industrial effluents, water supplies, and rural sewage, were targeted for major study in the southern Illinois areawide planning project.

The water quality management plan must provide for the following:

(1) The control of Point Source Pollutants--water borne pollutants which are discharged from factories, municipal sewage systems, and other sources at specific locations, through sewer pipes, culverts, artificial channels, or other man-made conveyances.

(2) The control of Non-Point Source Pollutants--water borne pollutants which flow off the land after rainfalls, such as runoff from agricultural lands, mining sites, septic systems, and construction areas.

(3) The development of a Management System which will assure implementation of the Plan.

(4) The establishment of a Continuing Planning Process.

(5) The maximum use of Public Participation throughout the planning program.

The 208 concept is that the analysis of water quality problems and the development of remedial measures should be done simultaneously, in detail, for all sources of pollution. Thus, the Section 208 planning effort considers the degree of pollution abatement necessary to control both point sources of pollution (municipal and industrial waste discharges, for example) and non-point sources of pollution (such as drainage from mine wastes and runoff from agricultural lands, construction projects, and timber harvesting operations).

The principal objective of the planning process has been to develop recommendations for pollution abatement actions necessary to meet the Act's 1983 national water quality objective, which specifies that "wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983."

A necessary task in support of that objective has been the development of recommendations for implementing the plan. In this regard, the planning process is complete only when the planning agency recommends both what should be done to abate pollution and also who should be responsible for implementing the recommendations in the plan.

This document specifically addresses the development of the management system required for successful implementation of the management plan. It is a joint product of efforts by the project's advisory committees and assigned staff, under the direction of the Water Quality Task Force.

Public Participation

As a result of the public participation process, the final plan was enhanced and modified in several areas. One area where the plan has been directly affected by public participation was through the Technical

Subcommittees. Three reports have been produced which were not in the original work program. These additional reports were completed at the request of members of the Technical Subcommittees. The actual report titles and the committee which made the request are as follows: Geology of the Coal Mining Portion of the Southern Illinois 208 Area and Its Application to Water Quality Problems, Mine Wastes Committee; Pollution Sources: Agriculture, Land Use/Agriculture Committee; The 208 Macroinvertebrate Study Report: The Effects of Acid Mine Drainage on Mean Species Diversity in Six Southern Illinois Streams, Mine Wastes Committee.

Two other areas where the public participation process impacted the plan were the public information meetings and the public hearings. Through both the information meetings and the public hearings, the County Soil and Water Conservation Districts submitted information which they felt indicated their agencies to be the most qualified group to administer any erosion control program developed or recommended in the plan. This information weighed heavily in the final recommendation that named them the management agency for erosion control programs.

Another recommendation of the plan was for the formation of county health departments in the counties where none existed. This recommendation received strong support from a member of the general public at one of the public hearings. The person who presented the testimony lived in a county which has no health department, and his home was located in a cluster of homes served by septic systems. A septage problem developed and he was unable to get the state or the county to act on the problem without a county health department or an ordinance covering private sewage disposal systems.

Support for the general direction the plan was taking and some of the specific recommendations was also seen through the county workshops and at presentations made during the speakers bureau program.

Chapter 1

WASTE TREATMENT AND WATER QUALITY AGENCY DESIGNATION

Regional Water Quality Council

Recommendation for Regional Water Quality Council

The Greater Egypt Regional Planning and Development Commission and the Southeastern Illinois Regional Planning and Development Commission, acting through their jointly established Regional Water Quality Task Force, recommends to the area's Counties, major municipalities, and Soil and Water Conservation Districts that they mutually create a Regional Water Quality Council. The purpose of the Council is to coordinate the implementation of the 208 areawide plan recommendations while assuring continuation of the 208 areawide planning process.

Membership of Regional Water Quality Council

The membership on the Council is proposed as follows:

1. 208 Area Counties

   A. Franklin
   B. Gallatin
   C. Hamilton
   D. Hardin
   E. Jackson
   F. Jefferson
   G. Perry
   H. Pope
   I. Saline
   J. Williamson

2. 208 Area Major Waste Treatment and Water Quality Municipalities

   A. Benton
   B. Carbondale
   C. DuQuoin
   D. Eldorado
   E. Harrisburg
   F. Herrin
   G. Marion
   H. McLeansboro
   I. Mt. Vernon
   J. Murphysboro
   K. West Frankfort

3. 208 Area Soil and Water Conservation Districts

A. Franklin
B. Gallatin
C. Hamilton
D. Jackson
E. Jefferson
F. Perry
G. Pope-Hardin
H. Saline
I. Williamson

4. River Conservancy Districts

A. Kinkaid Reeds Creek Conservancy District
B. Rend Lake Conservancy District
C. Saline Valley Conservancy District
D. Lusk Creek Conservancy District
E. Bay Creek Conservancy District

The above membership is recommended in that these major agencies have primary responsibility for implementation of the plan recommendations. Other management agencies having a role in solving the Region's water quality problems are expected to participate in the Council through its advisory committee structure.

Three committees are recommended to be established to fill an advisory role to the council. The advisory committees, functioning in an active role, are necessary to assure full input to the Council's planning process while maximizing coordination of implementation efforts.

These committees are 1) mineral extraction; 2) non-point sources; and 3) point sources. They will deal with the 208 area water quality issues as outlined below.

Mineral Extraction Advisory Committee

Coal, fluorspar, petroleum, sand/gravel, and salt water intrusion issues will be dealt with. Membership will include industries involved with these problem areas.

Non-Point Sources Advisory Committee

This committee will function through two sub-committees: 1) Agriculture and 2) other non-point sources. The Agriculture sub-committee will concern itself primarily with critical erosion problems, while the other Non-Point Source sub-committee will be concerned with problems associated with construction, hydrologic modifications, and silviculture (forestry). Membership will include representatives from the above listed water quality problem areas.

Point Sources Advisory Committee

The Committee will be concerned with issues surrounding capital needs, development timing, residual waste, and land disposal systems. Membership will include representatives from point source management agencies.

It should be stressed that the Regional Water Quality Council Advisory Committees will include membership from outside the council membership in order to provide the broadest possible base of input, including public participation. Examples of such members are smaller communities, public health departments, consumer and public interest groups and private interests. (Note: Figure 1, Proposed Organizational Structure.)

Authority of Regional Water Quality Council

The Regional Water Quality Council will draw its authority from the local governments which create it, through the Illinois Intergovernmental Cooperation Act (P.A. 78-785 Chapter 127, paragraphs 741-748, Illinois Revised Statutes). Further, it is recommended that the United States Environmental Protection Agency, the Illinois Environmental Protection Agency, and the Governor of the State of Illinois designate the Regional Water Quality Council as the Areawide Water Quality Management Agency, as authorized under P.L. 92-500, as amended.

Purposes of Regional Water Quality Council

1) To provide an areawide conceptual perspective, rather than an individual management agency perspective;

2) To provide a single voice through which coordination and management can occur;

3) To serve as a catalyst in the receipt and distribution of water quality management information;

4) To monitor area water quality management activities and program implementation;

5) To serve as the central stage through which local management agencies can resolve differences;

6) To be an available mediating board for area agencies to use in establishing criteria or setting priorities for programs and funds;

7) To serve as the central area agency within a network of management agencies responsible for meeting the requirements of P.L. 92-500, Section 208 (c) (2).

Responsibilities of the Regional Water Quality Council

The responsibilities of the Regional Water Quality Council will be as follows:

1) To maintain and revise the areawide waste treatment management plan pursuant to relevant Federal and State statutes and regulations;

2) To coordinate the schedule of treatment works necessary to meet the municipal and industrial wastewater treatment needs of the Region, including construction and funding priorities;

3) To designate areas of critical soil erosion and to monitor and assess activities of the Soil and Water Conservation Districts and other agencies related to such areas, pursuant to the areawide waste treatment management plan;

4) To coordinate with appropriate federal, state, and local agencies the review of proposed mining and reclamation plans and permits pursuant to Public Law 95-87;

5) To recommend the modification (by means of structural or non-structural activities, as appropriate) of lands which adversely impact the water quality of the region;

6) To monitor the water quality of lakes and streams currently serving as, or proposed to serve as, public water supplies and to coordinate and assist the enforcement of regulations safeguarding such water supplies;

7) To develop and recommend implementation of (in coordination with such federal, state, and/or local agencies as may be appropriate) educational, research, and demonstration programs related to the attainment and maintenance of regional water quality goals, pursuant to the areawide waste treatment management plan.

8) To provide a continuing structure for the presentation of timely information to the public while insuring the participation of the public in policy development.

Powers of the Regional Water Quality Council

The responsibilities listed above for the Regional Water Quality Council will require the Council to have the following powers:

1) To have access to all information, reports, and other data in possession of units of local and state government within the area;

2) To prepare an annual budget and to recommend, from time to time, to the local governmental agencies within the area, the amounts and methods for providing funding for the Regional Water Quality Council;

3) To receive, invest, administer, and expend any funds, grants, services, and/or materials from any source. All such expenditures should be made upon vouchers executed by appropriate officers of the Regional Water Quality Council;

4) To appoint an Executive Secretary and such other employees as it deems necessary, and to engage other contractual personnel as it may require, within the limitation of its budget;

5) To acquire, to use, and to transfer, by sale or otherwise, any real or personal property required in the performance of its appropriate duties and function;

6) To contract with the regional planning and development commissions or other public or private entities for the provision of services;

7) To exercise any other authorities, rights, and privileges necessary or incidental to its operation.

Relationship between Regional Water Quality Council and Regional Planning Commissions

The Regional Water Quality Council would utilize the services of the Greater Egypt Regional Planning and Development Commission and the Southeastern Illinois Regional Planning and Development Commission for any planning and/or technical services or studies it may need to perform.

The Regional Planning and Development Commissions shall perform the following planning activities with and for the Regional Water Quality Council:

1) Perform those functions required of the "continuing planning agency" under P.L. 92-500;

2) Provide staff support and services to the Regional Water Quality Council;

3) Coordinate areawide water quality management planning with other regional planning programs undertaken by the Commissions;

4) Review, comment upon, and coordinate water quality management implementation through use of existing A-95 Regional Clearinghouse and other inter-governmental devices;

5) Perform such technical studies as requested by the Regional Water Quality Council.

Financing of Regional Water Quality Council

Financial support for the Regional Water Quality Council will come from several sources:

1) United States Environmental Protection Agency (75% funding through P.L. 92-500, as amended, Section 208) through FY 1983;

2) Membership of the Regional Water Quality Council;

3) State of Illinois funding to designated sub-state agencies (new legislation may be needed);

4) Such other public and/or private sources that may be available.

Scheduling to Operationalize the Regional Water Quality Council

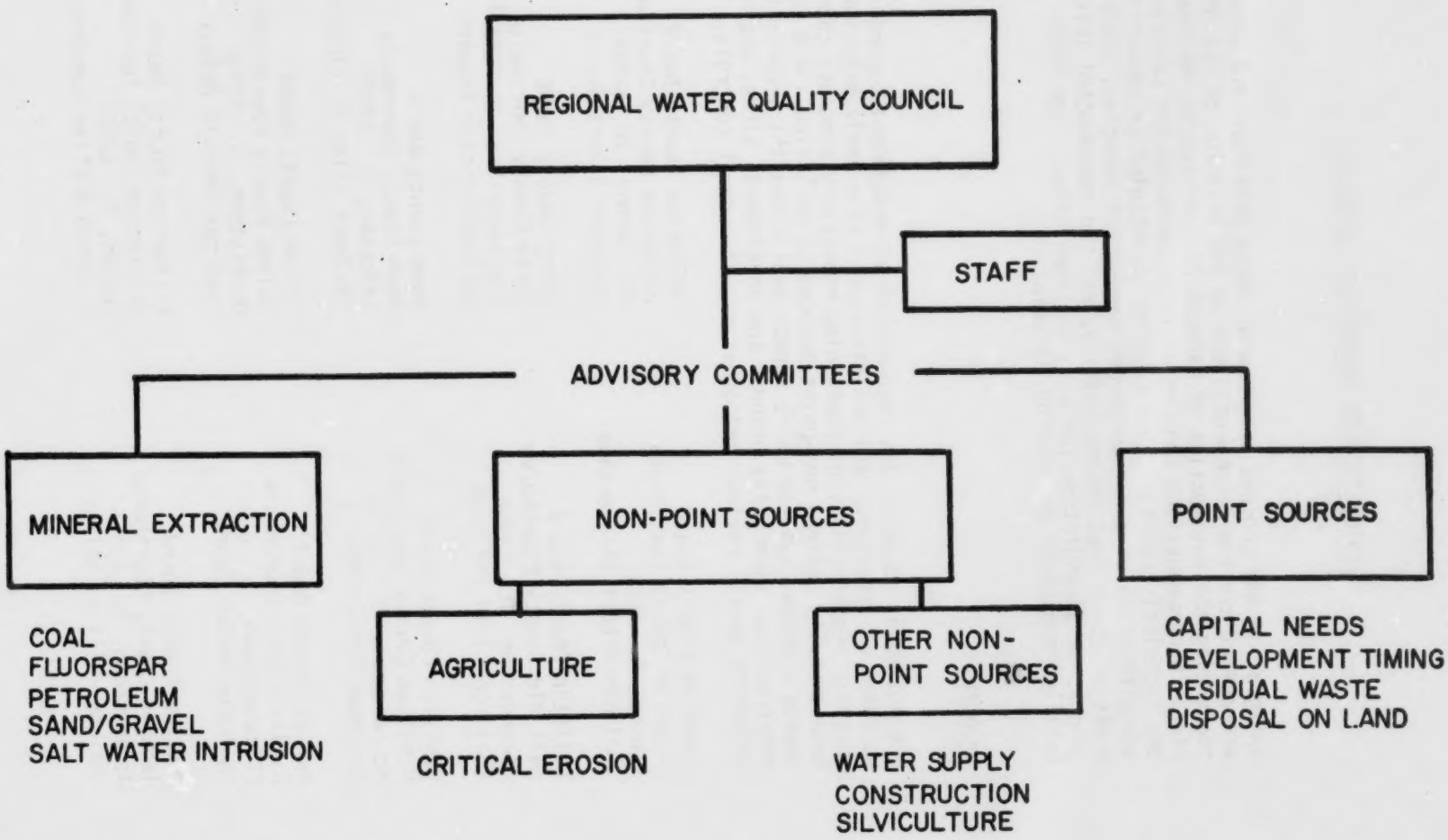
The Regional Water Quality Council is scheduled to hold its organizational meetings during the period March 1979-July 1979, and become functional no later than August, 1979.

Designation of Waste Treatment and Water Quality Management Agencies

Pursuant to Section 208 of P.L. 92-500, as amended, the Greater Egypt Regional Planning and Development Commission and the Southeastern Illinois Regional Planning and Development Commission, acting through the Regional Water Quality Task Force, recommend the following for designation of waste treatment and water quality management agencies.

Figure 1

PROPOSED ORGANIZATIONAL STRUCTURE



DESIGNATION OF MANAGEMENT AGENCIES

Integral to the concept of areawide waste treatment and water quality management are the recommendations to the Governor of the State concerning the designation of management agencies to implement the Plan. Recommendations concerning these agencies are contained in the technical reports. This section is intended to summarize the identification of the recommended management agencies, their broad areas of functional responsibility, and the recommended initial geographic jurisdiction for plan implementation. See Table 1 for detailed municipal designation information.

Counties

The following counties are recommended as management agencies for purposes of structural and non-structural plan implementation with specific responsibilities concerning regulatory programs addressing traditionally defined non-point sources of pollution, ie private sewage disposal systems which impact public health; impacts from construction, especially highway and development sites; and mining, including permit reviews and other non-structural controls.

Franklin County Board
Franklin County Courthouse
Benton, IL 62812
Chairman Albert Chiaventone

Gallatin County Board
Gallatin County Courthouse
Shawneetown, IL 62984
Chairman Lloyd Williams

Hamilton County Board
Hamilton County Courthouse
McLeansboro, IL 62859
Chairman Donald Morris

Hardin County Board
Hardin County Courthouse
Elizabethtown, IL 62931
Chairman Walter Bayne

Jackson County Board
Jackson County Courthouse
Murphysboro, IL 62966
Chairman William Kelley

Jefferson County Board
Jefferson County Courthouse
Mt. Vernon, IL 62864
Chairman Robert Irvin

Perry County Board
Perry County Courthouse
Pinckneyville, IL 62274
Chairman Victor Provart

Pope County Board
Pope County Courthouse
Golconda, IL 62938
Chairman Allen E. Kingsley

Saline County Board
Saline County Courthouse
Harrisburg, IL 62946
Chairman Reginald Reigel

Williamson County Board
Williamson County Courthouse
Marion, IL 62959
Chairman William Humphreys

Municipalities and Selected Public Water and Sanitary Sewer Districts

The following municipalities and sanitary sewer districts are recommended as management agencies for purposes of structural and non-structural plan implementation with specific responsibilities concerning point sources of pollution, ie the planning construction, maintenance, and operation of wastewater collection and treatment systems. The recommended geographic jurisdiction for each of the municipalities is that area within their respective corporate limits and that area within 1 1/2 miles of their corporate limits. The recommended geographic jurisdiction for the sanitary districts is limited to their current service areas.

Municipalities

City of Ava
Ava, IL 62907
Mayor Billy D. Rhodes

Village of Belle Prairie City
R. R. 2
Dahlgren, IL 62828
Village President Gary Karcher

Village of Belle Rive
Belle Rive, IL 62810
Village President Donald Wilkey

City of Benton
Benton City Hall
201 West Main Street
Benton, IL 62812
Mayor Herbert Mundell

Village of Bluford
Bluford Village Hall
Bluford, IL 62814
Village President Aline B. Talbert

Village of Bonnie
Bonnie, IL 62816
Village President Lester Keller

Village of Broughton
Broughton, IL 62817
Village President Guy Vernon Jones

Village of Buckner
Buckner, IL 62819
Village President Robert Mallory

Village of Bush
R. R.
DeSoto, IL 62924
Village President Theron Scott

Village of Cambria
Cambria, IL 62915
Village President John Rowatt

Village of Campbell Hill
Campbell Hill, IL 62916
Village President Lawrence Ehlers

City of Carbondale
609 East College
Carbondale, IL 62901
Mayor Hans Fischer

Village of Carrier Mills
Village Hall
Carrier Mills, IL 62917
Village President Chester Starkey

City of Carterville
107 West Illinois Street
Carterville, IL 62918
Mayor Frank Samuels, Jr.

Village of Cave-in-Rock
Village Hall
Cave-in-Rock, IL 62919
Village President Ralph Warren

City of Christopher
221 West Market Street
Christopher, IL 62822
Mayor Ernest Moro

Village of Colp
Colp, IL 62921
Village President Frank Caliper

Village of Crainville
Village Hall, R. R. 1
Carterville, IL 62918
Village President Lawrence Emery

City of Creal Springs
City Hall
Creal Springs, IL 62922
Mayor Hallie Ranner

Village of Cutler
Village Hall
Cutler, IL 62238
Village President Gary Farley

Village of Dahlgren
Village Hall
Dahlgren, IL 62828
Village President Dallas Shelton

Village of DeSoto
Village Hall
DeSoto, IL 62924
Village President Bill Groves

Village of Dix
Dix, IL 62830
Village President J. T. Warren

Village of Dowell
Dowell, IL 62927
Village President Jerry Williams

City of DuQuoin
23 South Mulberry
DuQuoin, IL 62832
Mayor Robert M. Armstrong

Village of Eddyville
Eddyville, IL 62928
Village President Ralph Aly

City of Eldorado
City Hall
Eldorado, IL 62930
Mayor Ben Ballard

Village of Elizabethtown
Elizabethtown, IL 62931
Village President Robert Patton

Village of Elkville
200 South Fifth Street
Elkvillle, IL 62932
Village President Kenneth Gallup

Village of Energy
Village Hall
Energy, IL 62933
Village President Bob Jeralds

Village of Equality
Equiality, IL 62934
Village President Stanley Sisk

Village of Ewing
Village Hall
Ewing, IL 62836
Village President Clyde Ray

Village of Freeman Spur
Freeman Spur, IL 62841
Village President Ralph Murray

Village of Galatia
Galatia, IL 62935
Village President LeRoy Bird

City of Golconda
City Hall
Golconda, IL 62938
Mayor James Lowery

Village of Gorham
Gorham, IL 62940
Village President John Manken, Jr.

City of Grand Tower
City Hall
Grand Tower, IL 62942
Mayor Thomas F. Hale

Village of Hamletsburg
Hamletsburg, IL 62944
Village President Dale Wetherington

Village of Hanaford
Hanaford, IL 62856
Village President Ronnie Betine

City of Harrisburg
City Hall
Harrisburg, IL 62946
Mayor Kenneth Ozment

City of Herrin
300 North Park Street
Herrin, IL 62948
Mayor Mario Ottolini

City of Hurst
City Hall
Hurst, IL 62949
Mayor L. A. Darter

Village of Ina
Ina, IL 62846
Village President Melvin Clinton

City of Johnston City
500 Washington St.
Johnston City, IL 62951
Mayor Bill Stevens

Village of Junction
Junction, IL 62954
Village President David Wood

Village of Macedonia
Macedonia, IL 62860
Village President W. W. Gibbs

Village of Makanda
Makanda, IL 62958
Village President B. C. Ross

City of Marion
City Hall
Marion, IL 62959
Mayor Robert L. Butler

City of McLeansboro
City Hall
McLeansboro, IL 62859
Mayor James P. Mick

City of Mt. Vernon
1100 Main Street
Mt. Vernon, IL 62864
Mayor Kenneth Martin, Jr.

Village of Muddy
Village Hall
Muddy, IL 62965
Village President Pietro Molinarolo

City of Murphysboro
City Hall
Murphysboro, IL 62966
Mayor Michael Bowers

Village of Nason
Nason, IL 62866
Village President Jack Dent

Village of New Haven
New Haven, IL 62867
Village President Roger Edmonds

Village of North City (Coello)
Coello, IL 62825
Village President Peter Moschino

Village of Old Shawneetown
Old Shawneetown, IL 62894
Village President Jack D. Baldwin

Village of Omaha
Omaha, IL 62871
Village President Richard Abell

City of Orient
Orient, IL 62874
Mayor John Swaczie

City of Pinckneyville
110 South Walnut St.
Pinckneyville, IL 62274
Mayor Jake Bender

Village of Pittsburg
Village Hall
Pittsburg, IL 62974
Village President Lloyd Prause

Village of Raleigh
Raleigh, IL 62977
Village President Jack Davenport

Village of Ridgway
Ridgway, IL 62979
Village President John B. Holmes

City of Rosiclare
Rosiclare, IL 62982
Mayor Kennis H. Wallace

City of Royalton
Royalton, IL 62983
Mayor Charles McDickens

Village of St. Johns
Box 163
DuQuoin, IL 62832
Village President Joe Clark

City of Sesser
302 West Franklin Avenue
Sesser, IL 62884
Mayor William Schettler

City of Shawneetown
City Hall
Shawneetown, IL 62984
Mayor Richard February

Village of Spillertown
R. R. 1
Marion, IL 62959
Village President Kenneth McNeely

Village of Stonefort
Stonefort, IL 62987
Village President George Jackson

Village of Tamaroa
Tamaroa, IL 62888
Village President Kenneth Valentine

Village of Thompsonville
Thompsonville, IL 62890
Village President Norman J. Johnson

Village of Valier
Village Hall
Valier, IL 62891
Village President Martin H. Buchanan

Village of Vergennes
Vergennes, IL 62994
Village President Ervin Blumenstock

Village of Waltonville
Waltonville, IL 62894
Village President Arthur Menzel

Village of West City Hall
1115 West Webster
Benton, IL 62812
Village President J. B. Kearney

City of West Frankfort
City Hall
108 North Emma Street
West Frankfort, IL 62896
Mayor Jack Woolard

Village of Whiteash
R. R. 1
Marion, IL 62959
Village President Robert Sanders

Village of Willisville
Willisville, IL 62997
Village President Wilbur Alms

Village of Woodlawn
Woodlawn, IL 62898
Village President Lillian Clark

City of Zeigler
City, 301 Church Street
Zeigler, IL 62999
Mayor Thomas D. Rogers

Lake of Egypt Water District
Route #4, Box 254
Marion, IL 62959
Chairman O. T. Ferrill

County Soil and Water Conservation Districts

The following county soil and water conservation districts are recommended as management agencies to address soil erosion problems resulting from agricultural activities only on those identified critical erosion lands located within the priority water quality areas as identified in the technical report on Agriculture, Appendix B-2.

As such, the recommended geographic jurisdiction of each soil and water conservation district's plan implementation of best management practices concerning soil erosion from agricultural practices is confined to those priority water quality areas identified in Chapter 6 of Appendix B-2, Pollution Sources: Agriculture. It should be noted that the geographical area of management agency jurisdiction with respect to erosion control issues is less than countywide.

Other responsibilities of the soil and water conservation districts which are countywide in nature are: the development of educational programs concerning best management practices for controlling water quality impacts from pesticide/herbicide applications, fertilizers, and livestock wastes; evaluations of proposed hydrographic modifications; and promotion of practices to preserve and improve impacts on water quality from varying land uses.

Franklin County Soil and
Water Conservation District
P.O. Box 440
Benton, IL 62812
Chairman Ralph Smith

Gallatin County Soil and
Water Conservation District
P.O. Box 406
Ridgway, IL 62979
Chairman L. Pat Drone

Hamilton County Soil and
Water Conservation District
P.O. Box 267
McLeansboro, IL 62859
Chairman Donald Morris

Jackson County Soil and
Water Conservation District
P.O. Box 738
Murphysboro, IL 62966
Chairman Robert M. Saupe

Jefferson County Soil and
Water Conservation District
409 Harrison
Mt. Vernon, Il 62864
Chairman John Turrel

Saline County Soil and
Water Conservation District
P.O. Box 465
Harrisburg, IL 62946
Chairman Water Neal

Perry County Soil and Water
Conservation District
907 South Main
Pinckneyville, IL 62274
Chairman Raymond Lambert

Williamson County Soil and
Water Conservation District
412A South Court Street
Marion, IL 62959
Chairman Duane Wittenborn

Pope-Hardin Counties Soil
and Water Conservation District
P.O. Box C
Golconda, IL 62938
Chairman L. E. Gard

River Conservancy Districts

The following river conservancy districts are recommended as management agencies for purposes of structural and non-structural plan implementation of best management practices with respect to the construction, maintenance, and operation of water treatment and related waste treatment systems. The geographic jurisdiction for each is the water supply areas and those lands under their existing water pollution control authority as authorized by current legislation.

Rend Lake River Conservancy
District
1600 Marcum Branch Road
Benton, IL 62812
President: Charles J. Covington

Kinkaid-Reeds Creek River
Conservancy District
Route 4
Murphysboro, IL 62966
Chairman: Lester Allen

The following river conservancy districts are recommended as management agencies for purposes of implementing the Plan, especially as it concerns the implementation of best management practices in controlling nonpoint sources of pollution as a result of hydrographic modifications and other water resource development activities under their sponsorship. The geographic jurisdiction for plan implementation is coterminous with each district's legally established boundaries.

Saline Valley Conservancy District
900 Dewey
Eldorado, IL 62930
President: John W. Cox

Lusk Creek Conservancy District
Golconda, IL 62938
Chairman: Rodney Brenner

Kinkaid-Reeds Creek River
Conservancy District
R. R. 4
Murphysboro, IL 62966
Chairman: Lester Allen

Bay Creek Conservancy District
R. R. 2
Brownfield, IL 62911
President: L. E. Gard

Rend Lake River Conservancy District
1600 Marcum Branch Road
Benton, IL 62812
President: Charles J. Covington

Table 1
DESIGNATION DETAIL FOR FACILITY PLANNING AREAS

Facility Planning Area	Municipalities or Water Districts	Status	Lead Planning Agency	Responsible For:		
				Collection	Transport	Treatment
Ava	Ava	Completed MNA	Ava	X	X	X
Belle Prairie City	Belle Prairie City	Completed MNA	Belle Prairie	Non-Traditional System Proposed		
Belle Rive	Belle Rive	Completed MNA	Belle Rive	X	X	X
Benton	Benton	Step 1 Study in Process	Benton	X	X	X
	West City	Facility Constructed 1977	Benton	X	X	
Bluford	Bluford	Facility Constructed 1976	Bluford	X	X	X
Broughton	Broughton	Completed MNA Plus Health Hazard Grant Status	Broughton	X	X	X
Campbell Hill	Campbell Hill	Completed MNA	Campbell Hill	X	X	X
Carbondale	Carbondale	Facility Under Construction	Carbondale	X	X	X
Carrier Mills	Carrier Mills	Step 1 Study in Process	Carrier Mills	X	X	X

Table 1 (Continued)

Facility Planning Area	Municipalities or Water Districts	Status	Lead Planning Agency	Responsible For: Collection	Transport	Treatment
DuQuoin	DuQuoin	N/A	DuQuoin	X	X	X
	St. Johns	N/A	DuQuoin	N/A	N/A	N/A
Eddyville	Eddyville	Completed MNA	Eddyville	X	X	X
Eldorado	Eldorado	Completed Step 1	Eldorado	X	X	X
Elizabethtown	Elizabethtown	Completed Step 1	Elizabethtown	X	X	X
Elkville	Elkville	Completed Step 1	Elkville	X	X	X
	Dowell	Health Hazard Grant Status	Elkville	X	X	X
	Hallidayboro	No Action	Elkville	No Action Alternative		
Equality	Equality	Completed MNA Plus Health Hazard Grant Status	Equality	X	X	X
Freeman Spur	Freeman Spur	Completed Step 1	Freeman Spur	X	X	X
Galatia	Galatia	Facility Constructed 1976	Galatia	X	X	X
Golconda	Golconda	Completed MNA	Golconda	X	X	X
Gorham	Gorham	Completed MNA	Gorham	X	X	X
Grand Tower	Grand Tower	Completed MNA	Grand Tower	X	X	X
Hamletsburg	Hamletsburg	Completed MNA	Hamletsburg	Non-Traditional System Proposed		
Hanaford	Hanaford	Completed MNA	Hanaford	X	X	X

Table 1 (Continued)

Facility Planning Area	Municipalities or Water Districts	Status	Lead Planning Agency	Responsible For: Collection	Transport	Treatment
Carterville	Carterville	Step 1 Study in Process	Carterville	X	X	X
	Cambria	Step 1 Study in Process	Carterville	X	X	X
	Crainville	Step 1 Study in Process	Carterville	X	X	X
Cave-In-Rock	Cave-In-Rock	Facility Under Construction	Cave-In-Rock	X	X	X
Christopher	Christopher	Completed Step 1	Christopher	X	X	X
	Urbain	Completed Step 1	Christopher	Considered contiguous with City of Christopher		
	Valier	Completed Step 1	Christopher	X	X	X
	Buckner	Completed Step 1	Christopher	X	X	
	North City	Completed Step 1	Christopher	X	X	
Colp	Colp	Completed MNA	Colp	X	X	X
Creal Springs	Creal Springs	Completed Step 1	Creal Springs	X	X	X
Cutler	Cutler	Completed MNA	Cutler	X	X	X
Dahlgren	Dahlgren	Facility Under Construction	Dahlgren	X	X	X
DeSoto	DeSoto	Step 1 Study in Process	DeSoto	X	X	X
Dix	Dix	Step 1 Study in Process	Dix	X	X	X

Table 1 (Continued)

Facility Planning Area	Municipalities or Water Districts	Status	Lead Planning Agency	Responsible For: Collection	Transport	Treatment
Harrisburg	Harrisburg	Step 1 Study in Process	Harrisburg	X	X	X
	Muddy	Facility Constructed 1976	Harrisburg	X	X	X
Herrin	Herrin	Step 1 Study in Process	Herrin	X	X	X
	Energy	Step 1 Study in Process	Herrin	X	X	X
Hurst	Hurst	Completed Step 1	Hurst	X	X	X
	Bush	Completed Step 1	Hurst	X	X	
Johnston City	Johnston City	Completed Step 1	Johnston City	X	X	X
	Whiteash	Completed Step 1	Johnston City	X	X	
Junction	Junction	Completed MNA	Junction	X	X	X
Lake of Egypt	Lake of Egypt	Health Hazard Grant Status	Lake of Egypt	X	X	X
Macedonia	Macedonia	Completed MNA	Macedonia	Municipal Septic Tank Cleaning Service		
Makanda	Makanda	Completed MNA	Makanda	X	X	X
Marion	Marion	Facility Constructed 1978	Marion	X	X	X
	Spillertown	Completed Step 1	Marion	X	X	
McLeansboro	McLeansboro	Completed Step 1	McLeansboro	X	X	X
Mt. Vernon	Mt. Vernon	Facility Under Construction	Mt. Vernon	X	X	X

Table 1 (Continued)

Facility Planning Area	Municipalities or Water Districts	Status	Lead Planning Agency	Responsible For: Collection	Transport	Treatment
Murphysboro	Murphysboro	Completed MNA	Murphysboro	X	X	X
New Haven	New Haven	N/A	New Haven	N/A	N/A	N/A
Omaha	Omaha	Completed MNA	Omaha	X	X	X
Pinckneyville	Pinckneyville	Step 1 Study in Process	Pinckneyville	X	X	X
Pittsburg	Pittsburg	Completed MNA Plus Health Hazard Grant Status	Pittsburg	X	X	X
Raleigh	Raleigh	Completed Step 1	Raleigh	X	X	X
Rend Lake-East	Rend Lake-East	Completed Step 1	Rend Lake-East	X	X	
	Bonnie	Completed Step 1	Rend Lake-East	X	X	X
	Ewing	Completed Step 1	Rend Lake-East	X	X	X
	Ina	Facility Under Construction	Rend Lake-East	X	X	X
Rend Lake-North	Rend Lake-North	Completed MNA	Rend Lake-North	Not Applicable		
	Nason	Completed MNA	Rend Lake-North	Municipal Septic Tank Cleaning Service		
Ridgway	Ridgway	Completed MNA	Ridgway	X	X	X
Rosiclare	Rosiclare	Step 1 Study in Process	Rosiclare	X	X	X
Royalton	Royalton	Step 1 Study in Process	Royalton	X	X	X

Table 1 (Continued)

Facility Planning Area Area	Municipalities or Water Districts	Status	Lead Planning Agency	Responsible For: Collection	Transport	Treatment
Sesser	Sesser	Completed Step 1	Sesser	X	X	X
Shawneetown	Shawneetown	Completed Step 1	Shawneetown	X	X	X
	Old Shawneetown	Completed Step 1	Shawneetown	X	X	
Stonefort	Stonefort	Completed MNA	Stonefort	Municipal Septic Tank Cleaning Service		
Tamaroa	Tamaroa	Facility Constructed 1977	Tamaroa	X	X	X
Thompsonville	Thompsonville	Facility Constructed 1974	Thompsonville	X	X	X
Vergennes	Vergennes	Completed MNA	Vergennes	Non-Traditional System Proposed		
Waltonville	Waltonville	Completed Step 1	Waltonville	X	X	X
West Frankfort	West Frankfort	Completed MNA	West Frankfort	X	X	X
	Orient	Completed MNA	West Frankfort	X	X	
West Rend Lake	West Rend Lake	N/A	West Rend Lake	N/A	N/A	N/A
Willisville	Willisville	Completed Step 1	Willisville	X	X	X
Woodlawn	Woodlawn	Facility Constructed 1975	Woodlawn	X	X	X
Zeigler	Zeigler	Completed Step 1	Zeigler	X	X	X

MNA - Municipal Needs Analysis Reports completed for Greater Egypt Regional Planning and Development Commission under 208 Water Quality Management Program.
Steps 1, 2, 3 - Done under Section 201 of P.L. 92-500.
N/A - No studies available on the FPA's at present.

Chapter 2

ALTERNATIVE MANAGEMENT SYSTEMS - RATIONALE FOR RECOMMENDED MANAGEMENT AGENCIES

The recommendation for the establishment of the Regional Water Quality Council is the result of several analytical processes undertaken during the initial planning period. Significant input and comments were received from several advisory committees, the Water Quality Task Force, persons testifying at the public hearings, the projects cognizant agencies, the Southern Illinois Mayors Association and the Illinois Municipal League. Each of these inputs was considered in the final analysis and recommendations concerning the establishment of the Water Quality Council.

The initial concern focused on whether there was a need for an areawide water quality management agency. An analysis of current water quality issues and the existing management agencies reflected a fragmented and extremely uncoordinated approach to water pollution control.[1] Little or no coordination or cooperation exists between agencies responsible for controls of nonpoint or point sources of pollution. No institutional framework exists to address these issues from an areawide perspective. Continuation of the current system of management, without a recognized allocation of responsibilities, appears fruitless.

The question of the areawide significance of pollution issues was evaluated. The area itself is rural (by census definition) rather than urban-industrial. Its principal water quality issues center around coal mining, municipal point sources of pollution, and agriculture. However, rural sewage, salt water impacts on streams, and hydrologic modifications have been identified as having areawide rather than local significance.

The areawide emphasis becomes acute in view of the area's dependency on surface water supplies. With the exception of the sparsely populated lands adjacent to the Mississippi and Ohio River alluviums (less than 20,000 persons), the great majority of the area's 244,000 population

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relies on either impoundments or streams for their water supply. Consequently, protection of those few reservoirs and adequate streams becomes a critical areawide issue.

Alternative Institutional Structures

The need for an areawide approach to wastewater treatment and water quality management is justifiable. Seven types of management systems addressing water pollution control problems had been developed.[2] These systems, or institutional arrangements, ranged from a "do-nothing" approach to three forms of an areawide council structure, with each of the three possessing varying levels of centralized authorities. In each of the three "council" structures developed, enabling legislation and/or permissive delegation of authority by the state, is necessary.

The concept of the proposed Water Quality Council is a result of public discussion, further staff analysis, and comments from the cognizant agencies, among others. The proposed council is to function as an oversight agency with advisory and monitoring responsibilities. Actual water quality management activities are to be conducted by the units of local government recommended for management agency designation.

The review process with the State of Illinois produced additional alternative structures for water quality management. The principal issues involved are designation of the area and agency(s) for continuing planning, designation of either area or agency; and no designation. These alternatives affect the degree of areawide decision making and coordinative activities by local government as well as the amount of local funds necessary to match federal funds for the continuing planning process. These alternatives are summarized below.

1. Continued designation of the ten county area and both the Greater Egypt Regional Planning and Development Commission and the Southeastern Illinois Regional Planning and Development Commission as oversight management planning agencies, working jointly through the previously established Water Quality Task Force.

This institutional structure would necessitate the expansion of the Water Quality Task Force by including a wider representation of the management agencies responsible for implementation. One viable method

of accomplishing the expansion is through membership in the planning commissions. This permits management agency representation on the Water Quality Task Force. No additional state legislation, or required interpretation of existing legislation is necessary for this institutional structure.[3]

Financing of the continuing planning process would be generated by the member management agencies to the respective commissions, and would be earmarked for water quality planning only. This procedure would necessitate an increase in the current local contributions to the Commissions by those management agencies who presently comprise the Commissions. There would exist a savings of approximately $50,000 annually through economies of scale by utilizing the existing administrative and staffing structures of the commissions.

The continuing planning process would be undertaken by the two planning commissions through contractual relationships with the lead commission and applicant. The Water Quality Task Force would, along with its advisory committees, oversight the conduct of the planning.

2. An alternative to the above is a separate designation of each planning commission and its respective five county planning area. This procedure effectively divides the established ten-county planning area into two designated areas. Under this strategy, the current designation of the ten-county area would be withdrawn by the State of Illinois.

The institutional framework would identify each planning commission as the oversight agency responsible for their respective continuing planning processes. There would be a need to expand the membership/composition of the planning commissions so that there would be an adequate representation of the management agencies responsible for implementation of the initial plan. However, this approach would seriously fragment the water quality planning effort in Southern Illinois. No additional legislation is necessary.

Financing of the continuing planning process would be similar to the alternative described in alternative one (1) above, (it should be noted that USEPA has indicated its dissatisfaction with this alternative).

3. A third major alternative is to withdraw agency designation, but not the area designation, by the State of Illinois. A variant of this strategy may maintain agency designation and withdraw area designation.

Either variant would require an areawide advisory group to provide input to the continuing planning process.

The State of Illinois would provide for all of the local share of fundi.. under the first variant. Specific continuing planning activities by the regional planning commissions may be conducted under contract with the Illinois Environmental Protection Agency. It may be considered a viable management strategy alternative especially if the generation of local funds becomes difficult, or impossible.

The designated management agencies responsible for plan implementation would maintain relationships and plan updating activities with both state and regional agencies.

4. A fourth major alternative is the withdrawal of both area and agency designation. This alternative would include the ten-county area as part of the balance of state 208 planning process. A regional advisory group may be established by the state to provide input into the planning process. Planning commissions may, or may not, be contracted to undertake specific planning activities.

Management agencies to implement the initial plan would be designated. Their relationship to the statewide continuing planning process has not been clearly defined by the State. It would most likely include a continuation of the current state-local relationships.

Funding for the continuing planning process would be supplied by the State of Illinois. No local funds may be required under this alternative.

Including the proposed Regional Water Quality Council, a total of twelve alternative management systems were analyzed. In summary, these systems may be arranged into four groups: (1) council type; (2) coordinative/committee type; (3) state-local; and (4) do nothing. (The twelve systems include seven in the document referenced in footnote 2, four in the preceding three pages, and the Regional Water Quality Council.)

Analysis and review revealed that a council-type structure on a ten-county basis was feasible. However, support for the council structure

would be feasible only on the basis it did not supplant nor supercede the inherent authorities of existing units of local government. It appeared apparent that an overall ten-county management system emphasizing coordination of functional water quality management activities was preferred over any centralized system which may be interpreted as regulatory, or competitive with existing authorities.

The coordinative/committee systems were found to be principally advisory with little (or no) coordination of activities which would furnish a ten-county perspective of the water quality management activities. Its organizational structure for program integrity is non-existant.

State-local systems, including the do-nothing, implies a combination of regulatory programs (including permits) administered by the state with a varying range of local options and advisory inputs by either regional or sub-regional units. It constitutes, however, a viable alternative structure in that both regulatory and water quality management planning functions rest in one agency. It is perceived that units of local government are skeptical of state-local relationships based on previous experiences, and are prone toward favoring some form of an overall management system which would permit an independently active and collective role concerning regional water quality management issues.

The evaluations and analyses of these management systems led to the recommendation of the Regional Water Quality Council as the preferred overall water quality management system. A second alternative for consideration by the 208 management agencies and the cognizant agencies (IEPA and USEPA) is to maintain the initial areawide planning system and expand the membership of the Commissions and/or its advisory oversight committee, the Water Quality Task Force. Of nearly equal ranking is the potential to develop a working relationship between the state and the existing regional structures.

Regional Water Quality Council

The Regional Water Quality Council, as recommended, serves the functions of planning and oversight activities without regulatory controls; and meets the criteria as defined in USEPA's "Program Guidance Memorandum: SAM-30"[4]. The Council is to be comprised of those units of local government recommended for designation as management agencies to implement the plan (see Chapter 1). It is expected that the continuing planning process will generate letters from each of the designated agencies,

including a statement from the prospective management agencies expressing their interest to carry out implementation measures. Such statements have been received from two of the larger municipalities, and the majority of the soil and water conservation districts.

The Council provides the institutional structure which brings together the various 208 management agencies. It is the mechanism through which the management agencies may jointly view the progress of their implementation activities, establish areawide priorities, maintain the continuing planning process, and develop areawide policies and activities, directed twoard resolving water pollution control issues.

The Council may be established through the provisions of the Intergovernmental Cooperation Act (Public Act 78-785). Alternatively, the Council may become a reality through continuation of the current agreement between the two planning commissions with a clear identification of the lead planning agency. Utilization of the existing commission framework permits the inclusion of additional 208 management agencies without creating yet another regional agency with minimum staffing levels.

The Council is to be composed of the designated 208 management agencies within the area. With the exception of mining, whose control responsibilities and implementation monitoring fall to the state, the membership's activities reflect those water quality issues which are areawide in scope and local in terms of control responsibilities and plan implementation.

The members of the Council are recommended for 208 management agency designation for a number of reasons. Most importantly, no other agencies can be identified to implement the various aspects of the plan. Secondly, nearly all recommended 208 management agencies already possess legislatively-granted authorities and have prior experience in water quality control activities.

The principal issue appears to be the lack of a coordinated and uniform level of water quality management areawide. One objective of the 208 management strategy is to propose an implementable management structure which addresses the water quality issues as well as being politically feasible.

The continuing planning process, although under the direction of the Regional Water Quality Council, will be conducted by the existing regional planning commissions. This would facilitate continuity of the initial water quality management planning program and avoid duplication of planning services. Further, it provides for plan integration and coordination between related HUD, EDA, solid waste, and rural development planning programs. The institutional relationships between the Council and the regional planning commissions are articulated in the first chapter.

208 Management Agencies

The 208 management agencies recommended for designation had been analyzed in terms of capability, previous experience, legislated authority, political realities, and accountability to the public (among other factors) relative to the areawide water pollution problems identified during the initial planning period.

Counties are recommended as 208 management agencies to address primarily rural sewage issues. Existing state legislation permits the counties to establish land use controls (zoning), subdivision ordinances, and a permitting process (septic systems) to control the location and proliferation of sources of rural sewage problems.

Additional activities recommended for counties to undertake are based on other objectives, but may be of mutual benefit to water quality enhancement. Consequently, counties have under other federal and state legislation the opportunity to review strip mine permit applications and their reclamation plans. In addition, counties may provide input to other agencies concerning prime agricultural lands, mining or floodplain preservation. These lands may be zoned as such based on existing land use, rather than on the bases of benefiting water quality enhancement. Insofar as the control of rural sewage problems is concerned, counties are the most likely management agency to succeed.

Municipalities are recommended as 208 management agencies with the primary objective of controlling and abating point sources of pollution, expecially from wastewater treatment plants. For those municipalities currently without a sewer system, the primary objective is to install a cost-effective wastewater collection and treatment system for their populace.

Municipalities possess all of the authorities required under Section 208 (c)(2) to plan, finance, construct, operate, and maintain wastewater treatment facilities. Further, municipalities may operate within their jurisdiction a regulatory program whereby industries and other users must be serviced by the municipal system.

Additional regulatory, non-structural controls which can be (and in many places are) in effect consist of zoning and subdivision regulations of up to one and one-half miles beyond the city limits. These controls enable the municipalities to regulate their urban fringe development in such a manner that it is compatible with scheduled systems growth (or non-growth).

Municipalities possess the expertise to budget and finance activities leading to plan implementation. In addition, they are collectively the principal eligible recipient of numerous opportunities for federal and state funding programs.

With the exception of sediment impact resulting from agricultural practices and acid mine drainage, municipalities and counties collectively complement each other's management responsibilities, in addressing two of the major areawide water quality problems.

County Soil and Water Conservation Districts are recommended as management agencies for purposes of controlling sedimentation from defined critical erosion lands within priority water quality areas.

Existing legislation, previous experience and an identified relationship with the agricultural community provide the basis for management agency designation. The principal liabilities which may be observed are the lack of local base funding, and the lack of regulatory authority (sanctions) against noncompliance. However, the management program is directed at the adoption of identified and applicable best management practices on a voluntary basis, and only on those critical erosion lands within the priority water quality areas.

Additional activities recommended to be undertaken by the soil and water conservation districts deal the the development of interagency cooperation, educational programs, and interlocal agreements designed to address related water quality control issues.

It should be noted that other units of local government were considered as alternative management agencies to address erosion-sedimentation problems. Each was found deficient in familiarity with the problems and in developed expertise.

River Conservancy Districts, especially those involved with reservoir management and/or water supply activities, are proposed as management agencies in order to protect the quality of their waters, and to control their water, or wastewater, treatment effluents.

River conservancy districts possess a wide range of regulatory authorities should they wish to utilize them to their fullest extent. In addition, they possess administrative staff, a local funding base, and have expertise in the management of large-scale development projects.

Public Water Districts are recommended as management agencies only where they are actively in the process of operating or planning a wastewater treatment system. However, the authority rested in water districts is limited. Consequently, implementation of the plan recommendations deal specifically with operating wastewater treatment systems and developing policy positions concerning limitations of water service as a regulatory device. Water Districts do have the capability to issue revenue bonds, and to develop local financial resources through the sale of services.

The State of Illinois. The enormity of the acid mine drainage problem dictates that the management agency be a state agency, or a consortium of state agencies. Even at this point in the planning program, the relationships are unclear between the Illinois Environmental Protection Agency, the Illinois Department of Mines and Minerals, and the Illinois Abandoned Mine Lands Reclamation Council. Both state code departments possess regulatory authorities dealing with controlling acid mine drainage. The Illinois Department of Mines and Minerals has a wider range of experience dealing with the total operations of mines. The three agencies comprising the Illinois Environmental Program appears to collectively have an edge on enforcement of water quality standards as concerning mine impacts as well as a larger experienced staff.

In summary, the management strategy and structure for the Southern Illinois 208 program consists of the Regional Water Quality Council, comprised of the 208 management agencies, as the oversight, coordinating

agency responsible for the continuing planning process and monitoring the status of plan implementation by the 208 designated agencies. It is an institutional arrangement whose concept was approved by over thirty major units of local government. The designated management agencies are those units of local government whose authority, expertise, and accountability most closely align with their functional responsibilities. The structure (system) provides for locally elected officials to jointly address mutual problems and develop strategies to allocate appropriate resources.

FOOTNOTES FOR CHAPTER 2

[1]Greater Egypt Regional Planning and Development Commission, Management Analysis: A Staff Report, December, 1976.

[2]Greater Egypt Regional Planning and Development Commission, Point and Non-Point Sources: Comprehensive Management Systems, March, 1977.

[3]Counties are authorized under Chapter 34, § 3001 et seq., to establish Regional Planning Commissions, and empowered to define the composition of the commissions.

[4]U.S. Environmental Protection Agency, PGM: SAM-30, "State and Areawide Water Quality Management Agencies - Designation and Acceptance," Federal Register, Vol. 42, No. 172, Tuesday, September 6, 1977, pp. 44776 - 44777.

Chapter 3

OVERVIEW OF MANAGEMENT RECOMMENDATIONS

The 208 Water Quality Planning Program has developed numerous management recommendations in various functional areas for a variety of agencies to implement. These recommendations involve actions that may involve a relatively simple or cost-free activity, such as adoption of a policy, to relatively complex and expensive activities, such as capital construction.

The management recommendations fall into the following basic classes of agencies for implementation or oversight: 1) State, 2) Counties, 3) Municipalities, 4) Soil and Water Conservation Districts, and 5) River Conservancy Districts. The costs may be borne in a variety of ways, including private individuals, developers, and industries as well as public bodies. For example, public agency bonding may be utilized to pay for the costs of municipal sewage treatment works, while private developers (passing costs on to their customers) may be required to pay for on-site treatment facilities at a subdivision development.

A variety of methodologies may be utilized as well, ranging from a permit/inspection system to capital outlay. The following table outlines agencies involved (by category), the primary problems to be addressed by them, source of problems, authority to address problem, the methodology to be utilized, and the resources to be called upon to meet the cost burden.

Additional detail and specific recommendations may be found in the following 208 plan documents:

Appendix A-1 - Report on Point Sources of Pollution in the Southern Illinois 208 Area

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Table 2

DESIGNATED MANAGEMENT AGENCY RESPONSIBILITIES

	State	County	Municipal	Soil and Water Conservation Districts	River Conservancy Districts
Problem:	Mining, NPDES, Construction, 404 Permits	Rural Sewage, Non-Point Sources	Sewage, Point Source, Non-Point Source, 1½ Mile	Sedimentation	Water Supply Pollution
Sources:	Acid Mine Drainage, Rural Sewage, Greater than 15 P.E., Feedlots, Industry, Hyrdrological modifications	Rural Sewage, Less than 15 P.E., Construction, Private Systems	Municipality, Industry, 1½ Mile subdivisions, Private Systems, Construction	Critical Agricultural Erosion in Water Quality Priority Areas	Salt Water, Petroleum, Mining, Sedimentation
Authority:	Regulatory	Regulatory	Regulatory	Voluntary (for a five year period)	Existing State Statutues
Methodology:	Rules and Regulations, Permits	Ordinance, Education	Ordinance, Facility Construction, Education	Best Management Practices, Site Specific Cooperative agreements, Education	Citations, Court Suits
Cost Burden:	Federal, State, Private	Developer, Private Individual	Federal, State, Private Individual, Developer, Industry	Federal, Private Individual	Source (Point and Non-Point)

Appendix B-1 - Nonpoint Sources of Water Pollution in the 208 Area

Appendix B-2 - Pollution Sources: Agriculture

Appendix B-3 - Rural Sewage in the 208 Area

Appendix B-5 - The Restoration and Maintainance of High Quality Water

Appendix B-6 - Land Use in the 208 Area

Appendix C-1 - Energy Report

Functional Area Management Recommendations

Coal Mining

It is the recommendation of the Water Quality Management Program that:

The local review process for the surface mine control act rest with municipal and county governments as management agencies, and that they should utilize such staff resources as they have traditionally relied upon. Consideration of additional staff resources should be made through P.L. 95-87 and the existing Regional Planning Commissions. (Appendix B-6, P. 115)

The Regional Water Quality Council serve to provide regional consistency in review and recommendations to the state regulatory agencies. (Appendix B-6, p. 115)

The preparation and implementation of land use plans and land use controls be the basis of local action for the coal mine regulatory process. (Appendix B-6, 114)

At such time as the regulatory program is adopted by the State of Illinois, amendments to these recommendations may be appropriate.

(Based upon the detailed simulation modeling undertaken by the project consultants, Energy and Environmental Analysis, Inc.)

--removal of gob and slurry within specific stream reaches and watersheds, by backfilling and blind flushing into inactive subsurface mines located within two miles of current population centers be carried out;

--control of gob and slurry be undertaken so as to achieve the best reasonably obtainable water quality consistent with control cost curves within specific stream reaches and watersheds, using least cost methods, as noted in the following table; site specific measures may be modified, based upon detailed technical and cost studies for each location. (Appendix C-3, Volume I, pp. 70-71; Volume II, Chapter 10 pp. 10-4, 10-5)

Application be made for funds for reclamation demonstration projects and water quality monitoring under P.L. 95-87. (Appendix C-1, pp. 88)

Counties and municipalities shall use and evaluate the following criteria in establishing lands unsuitable for coal mining pursuant to the enabling legislation of the Surface Mine Control and Reclamation Act of 1977 (P. L. 95-87)

Land Use: consistent with land use plans developed through adopted land use policies and plans required by Housing and Urban Development and other adopted implementive land use controls such as zoning. (P. L. 95-87, Section 522)

Fragile or Historic Lands: lands so designated by the Department of Conservation, and also lands designated by official action of county and municipal governments having historical, cultural, scientific, community, and aesthetic interests. (P. L. 95-87, Section 522)

Prime Agricultural Lands: lands so designated by the Soil Conservation Service. (P. L. 95-87, Section 522)

Natural Hazard Areas: lands so designated as geologically instable by the Illinois State Geological Survey. Lands so designated as flood hazard areas or subject to frequent flooding by either the Illinois Department of Transportation, Department of Housing and Urban Development, or the U. S. Army Corps of Engineers. (P. L. 95-87, Section 522)

Non-Degradation Waters: waters that meet concentration levels as set by the EPA, with exception of fecal coli and iron, shall be considered non-degradation waters. In addition, those impoundments, rivers, and streams serving as public water supplies shall also be considered as non-degradation waters. (Appendix B-5, page 30)

The appropriate State agency (Illinois Environmental Protection Agency; Illinois Department of Mines and Minerals; Illinois Institute of Natural Resources) provide adequate water quality monitoring so as to ensure compliance (or identify non-compliance) with existing water quality standards (Illinois Pollution Control Board, Chapters 3 and 4), regulations pursuant to P.L. 95-87, and the applicable terms and conditions of the mining permit. (Appendix B-5, p. 40)

No increases in mining activity occur in the headwaters of Crab Orchard Lake without significant and effective acid mine control measures. (Appendix C-3, Volume I, p. 59; Appendix C-3, Volume II, Chapter 10 p. 10-2)

No reclamation activity for abandoned mined lands in the lower half of the South Fork of the Saline River Basin be currently proposed, since recognized reclamation procedures at this time are not projected to significantly impact the existing poor water quality except in tributary watersheds where a marked improvement in receiving streams may accrue. (Appendix C-3, Volume I, page 58; Volume II, Chapter 10, page 10-1)

The Illinois Institute for Environmental Quality be requested by the Regional Water Quality Council to conduct research designed to find innovative and more cost effective ways to deal with such severe acid mine waste drainage as is found in the lower South Fork of the Saline River Basin.

Greater Egypt Regional Planning and Development Commission

Table 3

Southern Illinois 208 Areawide Mine Waste Program

Summary of Mine Waste Reclamation Program

(All Costs in $1000s)

BASIN NAME	MINE REF.	U/S	MINE DESCRIPTION	GOB (AC.)	SLURRY (AC.)	PLAN A COST	PLAN A METHOD	PLAN B COST	PLAN B METHOD	PLAN C COST	PLAN C METHOD	PLAN D COST	PLAN D METHOD
Pond Creek	130	U	ZIEGLER #4	65.1	93.3	862.1	B	862.1	B	862.1	B	862.1	B
	192	U	OLD BEN #9	48.8	29.7			3305.0	B	3305.0	B		
	193	U	OLD BEN #15	107.0	0.0	767.6	B	767.6	B	767.6	B	767.6	B
	69	U	PEABODY COAL COMPANY	0.9	0.0			6.6	B	6.6	B		
	66	U	BLACK BEAR MINE	0.5	0.0	1.9	B	4.5	A	1.9	B	1.9	B
	67	U	INDEPENDENT SMALL COAL CO.	0.2	0.0	0.8	B	2.8	A	0.8	B	0.8	B
	73	U	OLD BEN COAL COMPANY	20.9	0.0	47.2	B	61.2	A	47.2	B	47.2	B
	74	U	OLD BEN COAL COMPANY	2.0	0.0	4.3	B	4.9	A	4.3	B	4.3	B
	77	U	ST. LOUIS COAL & IRON	14.9	0.0	35.7	B	59.2	A	35.7	B	35.7	B
	128	U	FREEMAN #4	44.3	83.3	514.9	B	1368.3	A	514.9	B	514.9	B
	70	U	PEABODY COAL COMPANY #3	2.9	0.0			56.9	A	16.0	B		
	78	U	COSGRAVE-KLEHAN COAL CO.	3.0	0.0	23.4	A	23.4	A	12.2	B	12.2	B
	119	U	INDEPENDENT SMALL COAL CO.	1.4	0.0	13.0	A	13.0	A	6.8	B	6.8	B
	124	U	FREEMAN #3	32.0	3.0			2302.0	A	814.0	B		
	57	U	* CHIC/WIL/FRANKLIN COAL CO	35.6	0.0			788.8	B	788.8	B		
	104	U	* CONSOLIDATED OF ST. LOUIS	9.0	0.0			334.8	A	88.4	B		
	121	U	ZIEGLER #7	9.0	0.0			226.8	A	64.4	B		
	102	U	* FREEMAN COAL CO.	4.8	0.0			101.6	A	42.4	B		
	53	S	* FORSYTHE ENERGY	1.0	0.0			100.2	A	12.1	B		
	52	S	FORSYTHE ENERGY	26.0	58.0	328.8	B	966.6	A	328.8	B	328.8	B
			SUBTOTAL:			2569.7		11376.1		7714.2		2562.1	
Crab Orchard	56	U	KEYSTONE MINE	5.0	0.0	24.6	A	24.6	A		B	20.8	B
	64	U	SCHULLS ROAKS MINE	1.9	0.0	9.9	B	21.4	A	9.9	B	9.9	B
	65	U	SCRANTON MINE	6.4	0.0	35.3	A	35.3	A	27.2	B	27.2	B
	103	U	INDEPENDENT SMALL COAL CO.	1.0	0.0	9.8	A	9.8	A	5.3	B	5.3	B
	105	U	* INDEPENDENT SMALL COAL CO.	3.0	0.0	19.0	A	19.0	A	13.2	B	13.2	B
	79	U	PICKFORD MINE	1.4	0.0			26.3	A	9.0	B		
	84	U	KNIGHT-TURNER	2.2	0.0	21.6	A	21.6	A	11.3	B	11.3	B
	92	U	BLACK DIAMOND	4.8	0.0			154.2	A	54.7	B		
	63	S	* ASSOCIATED COAL CO.	4.0	0.0			150.0	A	36.9	B		
	111	U	PARTON BROTHERS	12.9	0.6			671.5	A	153.6	B		
	117	U	NEW BLACK DIAMOND COAL CO.	18.9	3.3			1456.8	A	332.0	B		
	125	U	PEABODY COAL CO.	1.4	0.0			25.9	A	9.0	B		
	90	S	MORGAN UTILITY	0.0	9.0	19.0	A	19.0	A	13.2	B	13.2	B
	63	U	BLUE RIBBON #2	0.2	0.0			1.1	A	0.9	B		
	75	U	INDEPENDENT SMALL COAL CO.	0.8	0.0			4.4	A	3.4	B		
	76	U	UNKNOWN	0.1	0.0			1.2	A	0.6	B		
	89	U	INDEPENDENT SMALL COAL CO.	13.5	0.0	87.0	B	255.3	A	87.0	B	87.0	B
	114	U	INDEPENDENT SMALL COAL CO.	0.6	0.0			11.2	A	4.1	B		
	82	U	INDEPENDENT COAL COMPANY	1.7	0.0			12.0	B	12.0	B		
	115	U	SQUARE DEAL MINE	6.6	0.0	36.8	B	36.8	B	36.8	B	36.8	B
	116	U	D AND J MINE	4.4	0.0			53.6	B	53.6	B		
	68	U	CHICAGO CHIC MUDDY COAL CO.	3.7	0.0			59.2	B	59.2	B		
	46	S	FORSYTHE CARTERVILLE	7.0	0.0			254.0	A	67.1	B		
	110	U	WHEDONING MINE	0.6	0.0			4.1	B	4.1	B		
	91	S	UTILITY COMPANY	8.0	25.0	173.9	B	390.3	A	173.9	B	173.9	B

METHODS :

A = BACKFILLING AND BLINDFLUSHING INTO ABANDONED UNDERGROUND MINES.

B = DISPOSAL INTO ACTIVE STRIP MINING OPERATIONS.
NUMBERS REFER TO PLANNING TIME STEP WHEN DISPOSAL CAN OCCUR.

C = RUNOFF CAPTURE AND DETENTION IN RESERVOIR.

U-Underground Mine

S-Surface Mine

* Data indicates that these sources may be partially or totally reclaimed. Removal efficiency unknown.

Greater Egypt Regional Planning and Development Commission

Table 3 (Continued)

Southern Illinois 208 Areawide Mine Waste Program

Summary of Mine Waste Reclamation Program

(All Costs in $1000s)

BASIN NAME	MINE REF.	U/S	MINE DESCRIPTION	JOB (AC.)	SLURRY (AC.)	PLAN A COST	PLAN A METHOD	PLAN B COST	PLAN B METHOD	PLAN C COST	PLAN C METHOD	PLAN D COST	PLAN D METHOD
	49	U	TAB MINE	0.5	0.0			3.6	B	3.6	B		
	41	U	INDEPENDENT SMALL COAL CO.	0.5	0.0			3.2	B	3.2	B		
	35	U	INDEPENDENT SMALL COAL CO.	3.0	0.0			17.1	B	17.1	B		
	40	U	INDEPENDENT SMALL COAL CO.	2.0	0.0			14.8	D	14.8	B		
			SUBTOTAL:			436.9		3757.3		1227.5		398.6	
South Fork Saline	76	S	AMAX C-C DELTA MINE	83.0	3.0	226.4	B	226.4	B	226.4	B	226.4	B
	80	U	CHANEY & CRESHAM	1.6	0.0	9.1	B	9.1	B	9.1	B	9.1	B
	85	U	OAK GROVE	4.1	0.0	27.0	B	27.0	B	27.0	B	27.0	B
	86	U	STEEL RIPPLE	1.8	0.0	11.8	B	11.8	B	11.8	B	11.8	B
	87	U	INDEPENDENT SMALL COAL CO.	1.9	0.0	10.2	D	10.2	D	10.2	B	10.2	B
	88	U	MITCHEL COAL COMPANY	4.6	0.0	23.4	B	23.4	B	23.4	B	23.4	B
	90	U	CHERRY HILL	3.5	0.0	34.2	B	34.2	B	34.2	B	34.2	B
	93	U	* MOORE MINE	5.9	0.0	84.4	B	84.4	B	84.4	B	84.4	B
	96	U	CLEAR HILL	5.7	0.0	53.0	B	53.0	B	53.0	B	53.0	B
	97	U	WALBUT VALLEY	1.6	0.0	8.6	B	8.6	B	8.6	B	8.6	B
	106	U	LIBERTY COAL CO.	1.2	0.0	6.3	B	6.3	B	6.3	B	6.3	B
	72	S	VALLEY CORDER MINE	3.0	0.0	28.8	B	28.8	B	28.8	B	28.8	B
	86	S	* PEABODY MINE	13.0	0.0	170.0	B	170.0	B	170.0	B	170.0	B
	86	S	PEABODY MINE	39.0	0.0	509.9	B	509.9	B	590.9	B	509.9	B
	103	S	* PEABODY C-C	0.0	55.0	220.0	A	220.0	A	220.0	A	220.0	A
	76	S	* AMAX C-C DELTA MINE	2.0	0.0			58.2	A	52.2	A		
	85	S	LAUBAR C-C	29.0	0.0			844.7	A	844.7	A		
	76	S	AMAX C-C LOWER DELTA MINE	19.0	0.0	171.5	B	171.5	B	171.5	B	171.5	B
	97	S	BLUEBIRD C-C	85.0	18.0	72.0	B	72.0	B	72.0	B	72.0	B
	97	S	BLUEBIRD C-C	7.0	0.0	207.8	A	207.8	A	207.8	A	207.8	A
	103	S	* PEABODY C-C	0.0	1.0	4.0	A	4.0	A	4.0	A	4.0	A
	112	S	SAXTON C-C	23.3	16.0			283.8	B	283.8	B		
	113	S	SAXTON C-C	0.0	17.0	68.0	A	68.0	A	68.0	A	68.0	A
	103	S	* PEABODY C-C	0.0	16.0	64.0	A	64.0	A	64.0	A	64.0	A
	139	U	* INDEPENDENT SMALL COAL CO.	4.4	0.0			37.8	B	37.8	B		
	140	U	INDEPENDENT SMALL COAL CO.	2.3	0.0			12.2	B	12.2	B		
	155	U	WASSON #2	0.8	0.0			3.8	B	3.8	B		
	160	U	WASSON #2	6.5	0.0			26.6	B	26.6	B		
	95	S	SAHARA C-C	81.0	71.0	284.0	B	284.0	B	284.0	B	284.0	B
	97	S	BLUEBIRD C-C	24.0	16.0	64.0	B	64.0	B	64.0	B	64.0	B
	96	S	SAHARA C-C	37.0	0.0	1077.7	A	1077.7	A	1077.7	A	1077.7	A
	148	U	INDEPENDENT SMALL COAL CO.	2.0	0.0			15.7	A	15.7	A		
	103	S	PEABODY COAL CO.	54.0	27.0	100.0	B	100.0	B	100.0	B	100.0	B
			SUBTOTAL:			3536.1		4818.9		4818.9		3536.1	
Middle Fork Saline	75	S	AMAX DELTA MINE	1.0	0.0			8.2	B	8.2	B		
	108	U	SUNNYBROOK	5.3	0.0	33.5	B	33.5	B	33.5	B	33.5	B
	76	S	* AMAX DELTA MINE	28.0	0.0			307.4	B	307.4	B		
	74	S	* PUTNEY BROTHERS MINE	3.0	29.0	142.7	B	142.7	B	142.7	B	147.7	B
	76	S	* AMAX DELTA MINE	0.0	20.0	80.0	B	80.0	A	80.0	A	80.0	B
	62	U	A.O. SINGUEL	3.9	0.0			60.9	A	60.9	A		

METHODS :

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C = SLURRY CAPTURE AND DETENTION IN RESERVOIR.

U-Underground Mine

S-Surface Mine

*Data indicates that these sources may be partially or totally reclaimed. Removal efficiency unknown.

Greater Egypt Regional Planning and Development Commission

Table 3 (Continued)

Southern Illinois 208 Areawide Mine Waste Program

Summary of Mine Waste Reclamation Program

(All Costs in $1000s)

Reproduced from best available copy.

BASIN NAME	MINE REF.	U/S	MINE DESCRIPTION	SOURCE (AC.)	SLURRY (AC.)	PLAN A COST	PLAN A METHOD	PLAN B COST	PLAN B METHOD	PLAN C COST	PLAN C METHOD	PLAN D COST	PLAN D METHOD
Middle Fork Saline	83	U	ENSMINGER	0.5	0.0			1.4	B	1.4	B		
	91	U	INDEPENDENT SMALL COAL CO.	0.8	0.0			1.7	B	1.7	B		
	94	U	INDEPENDENT SMALL COAL CO.	3.1	0.0	20.8	B	20.8	B	20.8	B	20.8	B
	100	U	GREEN VALLEY	2.9	0.0			28.8	B	28.8	B		
	101	U	GREEN VALLEY	0.1	0.0			0.5	B	0.5	B		
	113	U	INDEPENDENT SMALL COAL CO.	1.8	0.0	17.7	A	17.7	A	17.7	A	17.7	A
	120	U	NEW SUBSIDE	1.8	0.0	6.0	B	6.0	B	6.0	B	6.0	B
	123	U	TURNER #1	4.7	1.1			93.1	B	93.1	B		
	132	U	HARRISBURG #1	29.3	0.0			844.7	A	844.7	A		
	81	S	ARAX DELTA MINE	6.3	0.0			70.1	B	70.1	B		
	78	S	ARAX DELTA MINE	2.0	0.0			27.5	B	27.5	B		
	99	U	INDEPENDENT SMALL COAL CO.	5.6	0.0	36.9	B	36.9	B	36.9	B	36.9	B
	94	S	SAHARA C-C	20.0	11.0	249.6	B	249.6	B	249.6	B	249.6	B
	96	S	SAHARA C-C	213.0	140.0	3277.1	B	3277.1	B	3277.1	B	3277.1	B
	96	S	SAHARA C-C	9.0	6.0	110.3	B	110.3	B	110.3	B	110.3	B
	94	S	SAHARA C-C	42.0	10.0	489.4	B	489.4	B	489.4	B	489.4	B
	96	S	SAHARA C-C	34.0	10.0	143.6	B	143.6	B	143.6	B	143.6	B
	163	U	PEABODY #40	3.0	0.0			223.2	A	223.2	A		
	164	U	PEABODY #40	9.1	0.0	38.8	A	38.8	A	38.8	A	398.3	A
	96	S	* SAHARA C-C	14.0	6.0			138.1	B	138.1	B		
	150	U	*PEABODY #47	117.3	0.0			3795.6	B	3795.6	B		
	157	U	*SAHARA #16	3.1	0.0			13.1	B	13.1	B		
	149	U	INDEPENDENT SMALL COAL CO.	1.0	0.0			5.2	B	5.2	B		
	153	U	*SAHARA COAL CO.	9.0	0.0			50.5	B	50.5	B		
	154	U	*SAHARA COAL CO.	1.0	0.0			5.6	B	5.6	B		
	151	U	O'GARA #12	22.0	0.0			110.0	B	110.0	B		
	152	U	O'GARA #12	5.6	0.0			166.4	B	166.4	B		
	159	U	*WASSON #1	17.5	0.0			84.1	B	84.1	B		
	161	U	O'GARA #1	10.6	0.0			49.2	B	49.2	B		
	158	U	*BANKSTON CREEK COAL CO.	4.6	0.0			20.7	B	20.7	B		
	116	S	BANKSTON CREEK COLLIERIES	13.0	0.0			292.7	A	292.7	A		
	79	S	ARAX DELTA MINE	2.0	0.0			22.0	B	22.0	B		
	111	S	BLUEBIRD COAL CO.	7.0	0.0			69.0	B	69.0	B		
			SUBTOTAL:			4649.4		11136.1		11136.1		4649.4	

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C = RUNOFF CAPTURE AND DETENTION IN RESERVOIR.

U-Underground Mine

S-Surface Mine

*Data indicates that these sources may be partially or totally reclaimed. Removal efficiency unknown.

The Greater Egypt Regional Planning and Development Commission maintain and update the mine wastewater quality and cost optimization models for use in the evaluation of proposed mining and reclamation plans pursuant to P. L. 95-87.

Research and demonstration projects related to the application of sludge materials as a potential agent for long-term spoil stablization be actively encouraged by the Regional Water Quality Council. (Appendix A-1, p. 42)

The four plan alternatives as presented in the table are defined as follows: Plan A represents the best reasonable, and attainable water quality as defined by the analysis of the water quality vs. control level curves using backfilling and blind flushing as a preferred method around population centers, and the least cost method otherwise. Backfilling and blind flushing was considered to be preferrable and economically realistic around population centers because it represented dual benefits: 1) reduction of mining pollutants; 2) some measure of subsidence control. Reasonable was defined as a unit cost not to exceed two times that of the least expensive alternative. Plan B represents 100% "gob" and slurry control of existing sources coupled with subsidence control around all population centers. Subsidence control was considered without regard to cost within the two mile radius around population centers. Plan C represents a level of 100% control throughout each basin using the least cost method. Plan D represents the best reasonable, attainable water quality levels as defined by Plan A coupled with the least cost control alternatives. Plan A is the recommended alternative for implementation in the Southern Illinois 208 area. (Appendix C-3, Volume I, pages 70-71; Volume II, Chapter 10, pages 10-4, 10-5)

The preceding table, Southern Illinois 208 Areawide Mine Waste Program Summary of Mine Waste Reclamation Program, was taken from pages 73-75, Volume 1, Summary Report and pages 10-8 through 10-10, Volume II, Technical Report for the Southern Illinois 208 Mine Waste Control Program. These reports were submitted to the Greater Egypt Regional Planning and Development Commission by Energy and Environmental Analysis, Inc. in March 1978.

The Regional Water Quality Council review National Pollution Discharge Elimination System and other permits to be issued by the State of Illinois, including specific water quality monitoring from current and proposed coal mining activities data and other related data.

The Regional Water Quality Council, together with the Regional Planning and Development Commissions and other appropriate agencies, undertake an analysis of potential water quality impact of large energy conversion facilities.

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Point Sources

It is the recommendation of the Water Quality Management Program that:

The municipalities and selected water and sanitary districts be designated as the management agencies for their respective service areas as identified in (1) the individual Sec. 201 facility plans; (2) the individual municipal wastewater needs analysis studies and (3) Areawide Management Strategy Report. (Appendix A-2, pages 43-44)

The Priority Ranking and Capital Scheduling identified in the Municipal Wastewater Needs and Capital Scheduling Report (1978), be pursued as the major guide for the scheduling and funding of the municipal facilities within the 208 area. It should be noted that of the 81 communities, 62 are scheduled for funding by 1983, while 17 are schedule between 1983 and 1995 (not action is recommended for two municipalities). (Appendix B, pages 32-34)

The Regional Water Quality Council, in cooperation with the management agencies, conduct an evaluation of those facilities interpreted as being "implemented" during the first year of the continuing planning program, for purposes of: (1) evaluating the effectiveness of meeting effluent and stream water quality standards; (2) evaluating the effectiveness of resolving the original water quality and/or service area problems; (3) identifying any water quality or system problems which may have occurred during the implementation process; (4) developing solutions and plan modifications to resolve operational or unknown loading problems; and (5) conducting the annual planning update. (Appendix A-2; Appendix B, pages 32-34)

For those facilities scheduled for capital construction after 1980, the new decennial census of population be utilized to evaluate the accuracy of the current population projections and to redetermine, where necessary, service capabilities. (Appendix A-2; Appendix A, pages 1-81)

Where lead management agencies have been identified in potential areas of regionalization, and both currently possess existing sewer service systems, no further capital scheduling occur in that area for the secondary unit without the justification and concurrence of the lead agency. (Appendix A-2; Appendix B, page 1)

Land use controls through zoning ordinances and subdivision ordinances be enacted and implemented by the municipal management agencies, up to 1½ miles from their corporate boundaries, in order to align growth patterns with major interceptor and trunk line extension scheduling. (Appendix A-2, pages 24-25)

Revised effluent standards be established by the Illinois Pollution Control Board for several parameters (fecal coli, Biochemical Oxygen Demand, suspended solids, iron, and ammonia nitrogen) for 7-day, 10-year, zero flow streams. The Illinois Environmental Protection Agency's proposed effluent standards may be beneficial to the area's communities in meeting the State effluent requirements). Appendix A-1, pages 24-25)

Mine discharges be monitored periodically, to evaluate the impact on regional waters. After thorough investigation, a separate plan for point source mine discharges should be developed and implemented. (Appendix A-1, pages 101-106)

The water treatment plant discharges be controlled and disposed of properly. The management agency should comply with the National Pollution Discharge Elimination System permit limitation. (Appendix A-1, pages 89-94)

Private wastewater treatment facilities be upgraded so that they can meet the State effluent requirements. Regionalization potential also should be explored, in order to reduce the number of discharges in the region. (Appendix A-1, p. 7)

Table 4
MUNICIPAL WASTEWATER FACILITIES:
PRIORITY RANKING AND CAPITAL SCHEDULING

Priority Rank[1]	IEPA Priority Rank[2]	Community	Estimated Capital Costs	Construction Phase
1	0254	Willisville	364,000	1981-83
2	0428	Carterville	851,100	1980-82
3	0679	Ridgway	549,360	1981-83
3	0886	Equality	1,202,300	1978-80
5	0669	Dahlgren	442,000	1978
6	0147	Eldorado	2,835,634	1978-80
7	0116	Mt. Vernon[4]	7,059,933[3]	1976-80
7	*	Murphysboro	2,180,000	1977
9	0290	Energy	N.A.	1981-83
10	*	Spillertown	400,000[3]	1980-82
11	0448	Bonnie	930,676	1978-80
11	0510	Raleigh	738,000	1984-87
11	0869	Stonefort	No Action	
14	0732	Omaha	690,000	1985-88
15	0722	DeSoto	323,900[3]	1981-83
16	0184	Shawneetown	2,025,400	1979-81
17	0924	Cave-In-Rock	715,750	1978-80
17	0363	Ina	941,039	1978-80
19	0616	Ava	141,800	1981-83
20	0056	McLeansboro	2,276,859	1978-80
20	0091	Sesser	2,101,370	1978-80
22	0770	Broughton	349,200	1978-80
23	*	Cutler	145,500	1981-83
23	1062	Pinckneyville	463,900[3]	1981-83
25	*	Nason City	628,956	1986-89
25	*	Whiteash	331,020	1987-90
27	0185	Carrier Mills	148,367[3]	1979-81
27	0405	Harrisburg	1,502,200[3]	1981-83
27	0708	Vergennes	539,000	1988-97
30	0638	Pittsburg	928,000	1978-80
30	0892	Eddyville	299,200	1989-92
32	0681	Bluford	790,000	1976
32	0753	Campbell Hill	155,100	1981-83
34	0356	Waltonville	561,080	1981-83
34	0124	Carbondale[4]	4,407,000	1978-80

Table 4 (Continued)

Priority Rank[1]	IEPA Priority Rank[2]	Community	Estimated Capital Costs	Construction Phase
36	*	Hanaford	614,500	
37	0541	Old Shawneetown	303,800	1981-83
38	*	Makanda	539,000	1990-93
38	*	St. Johns	N.A.	1991-94
40	0340	Hurst	356,000	1978-80
40	0036	Marion[4]	2,990,000	1976-79
42	0453	Buckner	1,062,338	1981-83
42	0187	Herrin	3,764,500[3]	1979-81
44	*	New Haven	141,000[3]	1981-83
45	0544	Dowell	930,000	1977-79
46	0592	North City	508,235	1991-94
47	0534	Freeman Spur	885,000	1981-83
47	0724	Muddy	202,100	1981-83
49	*	Macedonia	No Action	
49	1024	West City	1,080,000	1978
51	0167	Benton[4]	1,026,000[3]	1979-81
51	1092	DuQuoin	418,400[3]	1981-83
51	*	West Frankfort	1,426,060	1981-83
54	*	Crainville	N.A.	1981-83
55	0763	Belle Rive	645,424	1992-95
55	*	Cambria	N.A.	1981-83
55	0345	Elkville	360,000	1980-82
58	*	Orient	823,000	1993-95
59	0773	Junction[4]	414,000	1993-95
59	0381	Tamaroa	850,000	1977
61	*	Colp	131,300	1981-83
62	0884	Golconda	141,000	1981-83
63	0182	Creal Springs	132,000	1980-82
64	0232	Christopher	2,112,055	1980-82
65	0591	Bush	69,400	1982-84
65	0354	Galatia	626,000	1976
67	0063	Johnston City	3,182,458	1978-80
67	0371	Woodlawn	351,357	1975
69	0830	Elizabethtown	227,392	1981-83
70	*	Gorham	115,000	1981-83

Table 4 (Continued)

Priority Rank[1]	IEPA Priority Rank[2]	Community	Estimated Capital Costs	Construction Phase
71	*	Hamletsburg	112,000	1993-95
72	0268	Thompsonville	444,900[3]	1974
72	1077	Ewing	1,801,909	1977-79
74	0500	Rosiclare	242,000[3]	1981-83
75	0979	Dix	83,800[3]	1981-83
75	0873	Royalton	276,200[3]	1981-83
77	*	Valier	129,277	1981-83
78	0746	Zeigler[4]	257,000[3]	1981-83
79	0971	Grand Tower[4]	159,000	1981-83
80	*	Belle Prairie City	97,000	1993-95
81	*	Urbain	N.A.	1993-95

[1]Priority Ranking done by Planning Commission staff for the ten-county 208 area Water Quality Program.
[2]Priority Ranking taken from IEPA 1979 Wastewater Treatment Facilities Municipal Project Priority List.
[3]Applicant estimated cost.
[4]Where a community has more than one project and therefore more than one priority number the lowest number was illustrated in this table.
*Community not listed on 1979 IEPA Priority List.
N.A.-Cost Estimates are not available.

Sewer service not be extended outside the existing municipal boundaries, without annexation or intergovernmental agreement with the responsible agency. (Appendix A-2, p. 52)

The management agencies operate the wastewater facilities to their maximum efficiency. Operators' training, conservation practices, and regulatory programs should be developed, to assure that proper operation and maintenance requirements of the system will be fulfilled. (Appendix A-2, p. 52)

All the area's unsewered communities should be funded for the 201 Step 1 grant. The 201 studies should conduct a detailed field study to evaluate the possibility of implementating on-site systems in the area as an alternative to the proposed centralized sewer system. The study should consider the availability of 85% federal grants for innovative (on-site) systems, and a higher priority ranking on the state list for such alternatives. If the 201 Step I study determines that on-site systems are feasible (economically and technically) in the unsewered municipal areas, then the community should implement the on-site alternative to resolve the wastewater disposal problem. (Appendix A-2, p. 25)

Those municipalities which are not on the Illinois Environmental Protection Agency's FY 77 priority list apply for 201 grants. These applications should be updated each year, regardless of grant status. (Appendix A-2, p. 52)

Annual Progress Reviews in the area of Point Sources shall be conducted by the Regional Water Quality Council.

Non-Point Sources

Residual Waste

It is the recommendation of the Water Quality Management Program that:

The Regional Water Quality Council develop a plan to utilize the sludge generated from wastewater treatment facilities in reclaiming coal mined land of the 208 area. (Appendix A-1, p. 42)

The Regional Water Quality Council identify the ultimate sludge and septage disposal sites. The Council should also identify mined lands reclamation sites for consideration in sludge application for long-term spoil and refuse stabilization. (Appendix A-1, p. 42)

Expansion and enforcement of the existing regulation related to sludge management (including residue from septic tank cleaning) be reviewed by the Regional Water Quality Council. The ultimate sludge disposal sites for such uses as sanitary landfill, soil conditioning and lagooning should be monitored, to protect the quality of surface water and ground water. (Appendix A-2, p. 46)

Annual Progress Reviews in the area of Point Sources shall be conducted by the Regional Water Quality Council.

Agriculture

It is the recommendation of the Water Quality Management Program that:

The areas most urgently needing agricultural erosion control programs are only those critical lands with an annual soil loss rate of ten or more tons per acre which are located within the delineated priority water quality areas listed below:

The highest priority of concern for the abatement of agricultural pollution within the critical lands is that of the protection and improvement of the region's public water supplies and their attendant watersheds. (Appendix B-2, p. 105)

The second priority of concern within the critical lands is that of the protection and improvement of those waters which constitute primary recreational facilities and/or secondary public water supplies. (Appendix B-2, p. 105)

The third priority of concern within the critical lands is that of the preservation and improvement of high quality waters. (Appendix B-2, p. 105)

The fourth priority of concern within the critical lands is that of correcting areas of locally severe soil erosion impacting year-round flowing streams. (Appendix B-2, p. 105)

The County Soil and Water Conservation Districts shall be designated as "management agencies" with respect to soil erosion control programs and shall adopt annual work programs that implement water quality within the priority management areas. (Appendix B-2, pages 106-107)

The activities of the County Soil and Water Conservation Districts include development of an operations and funding plan and a program of on-going education for agricultural water pollution, especially Best Management Practices related to fertilizers, pesticides/herbicides and livestock wastes. (Appendix B-2, p. 107)

In addition, the Soil and Water Conservation Districts in cooperation with the Regional Water Quality Council, shall develop an annual evaluation system.

For purposes of achieving the abatement of agricultural pollution within the designated critical, priority areas, the following participation rates by land owners are to be achieved:

1979	1-5%
1980	5-10%
1981	10-20%
1982	20-33%
1983	33-50%

(Appendix B-2, p. 107)

It is recommended that the current system of voluntary measures be continued, subject to annual evaluation. Mandatory programs will be considered, on the basis of annual evaluations which indicate that voluntary programs are not effective in reaching the priority goals. The mandatory programs shall be based upon available state and federal regulatory mechanisms. (Appendix B-2, p. 106)

The Agricultural Stabilization and Conservation Service allocate a minimum of fifty percent (50%) of its annual budget to traditional cost-sharing programs within the designated priority areas. (Appendix B-2, p. 113)

Resources of the Shawnee Resource Conservation and Development Project be allocated by the member Soil and Water Conservation Districts, in order to abate agricultural pollution within the designated priority areas, especially that related to publicly owned lands. (Appendix B-2, p. 113)

The control of feedlots and other concentrated animal production wastes be controlled through existing State National Pollution Discharge Elimination System (NPDES) permits and related regulations promulgated by the Illinois Pollution Control Board. (Appendix B-2, p. 91)

The Soil and Water Conservation Districts negotiate and execute agreements with the County Agricultural Stabilization Conservation Service committees to mutually define specific levels of technical and financial assistance for the implementation of cost-eligible Best Management Practices within priority areas. It is recommended that 90% cost-sharing be sought for application of Best Management Practices to critical erosion areas (those eroding at a rate of 10 tons/acre/year or greater) within the priority areas. (Appendix B-2, pages 107, 111, 113)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Rural Sewage

It is the recommendation of the Water Quality Management Program that:

The Counties be designated as the management agencies for rural sewage, and that the appropriate county health departments should be the operating agencies for monitoring, permitting and enforcing private sewage disposal systems. (Appendix B-3, p. 25)

The Regional Water Quality Council, in cooperation with Comprehensive Health Planning in Southern Illinois, Inc., support Jefferson and Hamilton Counties in the creation, funding, and organization of county health departments, and the addition of an Environmental Health division within the Perry County Health Department. (Appendix B-3, p. 25)

The county health departments' Environmental Health divisions obtain adequate staffing to do the necessary monitoring, permitting and enforcing of regulations related to private sewage disposal systems. (Appendix B-3, p. 25)

The private sector be encouraged to establish private sewage disposal maintenance services. (Appendix B-3, p. 25)

Specific municipal wastewater treatment facilities be designed with sufficient capacity to accept septage from private sewage disposal maintenance programs, and that equitable charges be instituted for the treatment of these wastes. (Appendix B-3, p. 24)

An educational program for the proper maintenance of private sewage disposal systems be instituted and the program be geared to home-owners, prospective home-owners, contractors, realtors, home loan institutions and maintenance system operators. (Appendix B-3, p. 26)

A training program for building contractors and septic system contractors be instituted, and consideration be given by the appropriate health departments to a septic system certification and/or licensing program for those operators. (Appendix B-3, pages 25-26)

In those areas adjacent to incorporated municipalities with wastewater treatment facilities, consideration be given to annexation and extension of sewer lines, in order to alleviate rural sewage pollution. In all cases of sewer line extension, there should be written agreements concerning future annexation or other arrangements. (Appendix B-3, p. 26)

In the rural areas of the counties, land use controls be initiated by the Counties to regulate the location and density of development, in order to minimize and/or alleviate the rural sewage problem. The type of private disposal systems and lot sizes should be determined for rural development, based on soil capabilities and other natural characteristics of the Region for on-site disposal of wastewaters. (Appendix B-3, p. 26)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

High Quality Water

Public Water Supplies

It is the recommendation of the Water Quality Management Program that:

Public Water Supplies be protected from further degradation and, where possible, be improved in quality, as a first priority of program implementation. (Appendix B-5, p. 31)

In order to protect or improve water supply impoundments in the ten-county designated area, best management practices be established on all agricultural lands in the reservoir watersheds, in order to control siltation and to prevent or diminish entry of pesticides, herbicides, and nutrients (and chemical reaction products of these) into reservoirs along with soil particles. The management of this process should be the responsibility of County Soil and Water Conservation Districts. (Appendix B-5, p. 31)

Water supply impoundments or river side-channel sources be protected from pollution emanating from mine-waste drainage, from upstream coal mining operations or abandoned mine lands. Water supply watersheds, such as the Saline River upstream of Harrisburg, should have high priority for mine-waste cleanup efforts at old mine and tipple sites. Coal mining should proceed only with extreme caution in watersheds of water supply reservoirs. (Appendix B-5, p. 32)

High water quality standards continue in force for effluents entering streams in water supply watersheds. Suspended solids standards should be established for these watersheds.

County health departments strictly enforce sewage disposal ordinances in housing areas located within water supply watersheds. (Appendix B-5, p. 33)

River Conservancy Districts and other water supply management agencies begin a program to convert larger percentages of the water supply watersheds to forest and grasslands and should, with the aid of appropriate agencies, strictly enforce necessary restrictions on development, industry, mining or quarrying within the watershed. (Appendix B-5, p. 30)

General Use Waters

It is the recommendation of the Water Quality Management Program that:

Streams and reservoirs having general recreational and/or back-up water supply use be regularly monitored, especially for bacterial counts, phosphorus, nitrogen, heavy metals, pesticides, and other potentially dangerous compounds and mine-waste related parameters. Swimming beaches should be regularly monitored, and standards for beach closure set and enforced at all public beaches. Sediments and fish flesh should be monitored, at recreational impoundments, for mercury, arsenic, lead, and pesticide levels. County Soil and Water Conservation Districts, in cooperation with River Conservancy Districts and other appropriate agencies, should work to bring increasing amounts of acreage in these watersheds under erosion control programs and to provide for appropriate restrictions on housing development, industrial, mining or quarrying activities. (Appendix B-5, pages 30, 33)

Non-Degradation Waters

It is the recommendation of the Water Quality Management Program that:

The Regional Water Quality Council, in cooperation with the appropriate State of Illinois agency, shall designate certain waters (which are not water supply waters) as non-degradable waters, which will not receive additional polluting effluent or water-borne pollutants from point or non-point sources anywhere in the watershed. (Appendix B-5, p. 30)

Such waters not be allowed to accumulate any monitored parameter up to the state-allowed standards, but would be monitored for any deterioration of water quality over the established long-term range. (Appendix B-5, p. 34)

Erosion, organic pollution, and/or other pollutant-producing activities be greatly restricted in these watersheds, in order to preserve the natural habitat and aesthetic qualities and to improve, if possible, water quality toward the achievement of re-establishing waters of nearly pristine quality in the ten-county area. These watersheds would, of necessity, be largely forested, with restricted permanent human habitation and no coal mining, petroleum extraction, or industrial activity. (Appendix B-5, p. 34)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Construction

It is the recommendation of the Water Quality Management Program that:

Control measures applied to transportation development sites follow Best Management Practices which minimize soil exposure, control surface water runoff, shield exposed soil, and/or bind exposed soil. Management

agencies to implement these measures should be the Illinois Department of Transportation and the county governments, each for their respective facilities. (Appendix B-1, p. 40)

Control measures applied to residential development sites address the problem of soil erosion during the usually long periods of time when lots are barren and roads are incomplete. Zoning or subdivision ordinances should be used by local governments as a tool to govern location and rate of development. Such ordinances should require that topographic features and erosion potential of soils be taken into account in street construction and lot layout, so as to minimize erosion problems. Timetables for paving and guttering streets and revegetating barren land can be specified. An inventory of soil characteristics in regard to erosion rates should be required, and soil percolation tests taken by health department officials, before development, so that erosion prevention measures and private sewage disposal requirements (where there is no sewerage) should be part of pre-development planning. (Appendix B-1, p. 39-41)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Fluorspar Mining

It is the recommendation of the Water Quality Management Program that:

The Regional Water Quality Council actively review and comment upon all applications for mining permits requested from the Illinois Environmental Protection Agency (IPCB, Chapter 4; and NPDES), and/or the Illinois Department of Mines and Minerals, particularly with regard to site design, road construction, stockpiling practices, water handling procedures, mine waste disposal, transportation and storage of reagents, and related water quality matters. (Appendix B-2, p. 9)

Prospecting permits also be reviewed, in order to assure adequate treatment of drilling waters containing suspended rock particles, and to assure adequate construction and maintenance of access roads, in accordance with practices recommended by the U.S. Forest Service for roads in forested areas, so as to minimize erosion problems. (Appendix B-1, p.9)

There be continued and strategically located monitoring of water quality in fluorspar mining areas, with emphasis on lead and zinc concentrations (the year-to-year variations in lead and zinc extraction tonnages make any given set of monitoring results non-indicative of possible future levels of these parameters in fluorspar affected streams). (Appendix B-1, p. 10)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Hydrographic Modifications

It is the recommendation of the Water Quality Management Program that:

A project of public education, based on the latest findings concerning the effects of channel modification, be conducted by County Soil and Water Conservation Districts, in cooperation with the County Extension Service. This should be done in conjunction with such projects as revegetation, bed roughening, and planting of shrubbery and trees wherever feasible along channelized streams, in cooperation with pertinent agencies, citizen groups, and private owners, for purposes of bank stabilization, stream bed shading, and aquatic habitat improvement. (Appendix B-1, p. 58)

Where proven hazards to the public health or to valuable properties justify modifications for flood control, auxilliary channel projects or other alternatives which are less likely to cause upstream degradation be considered, in lieu of channel deepening and widening projects. Where such justification is absent, clearance of the natural channel, without dredging and with minimum disturbance of bank vegetation, should be the only hydrographic modification allowed in the ten-county area. (Appendix B-1, p. 59)

Where channels have been straightened, no activities designed to deepen the channel, to prevent a natural return to meandering, or to mitigate aggradation be permitted, until upstream erosion control measures and bank revegetation along modified portions either are satisfactorily in place or are provided for in specified critical erosion areas of the watershed tributary to the site. Soil and Water Conservation Districts should coordinate with appropriate agencies, with respect to time tables, sequence, and priorities for these activities. (Appendix B-1, p. 59)

Such measures as headwaters and upstream impoundments, sediment traps, structures to hold tributary drainage, and grade stabilization structures be put in place wherever feasible in the watersheds of streams that have been channelized. (Appendix B-1, p. 59)

The appropriate State Agency (Illinois Environmental Protection Agency; Illinois Institute of Environmental Quality, and/or Illinois Department of Mines and Minerals) be responsible for monitoring the implementation of surface mine reclamation plans, in order to assure that drainage patterns are in fact being restored after hydrographic modifications have been performed pursuant to mining operations. (Appendix B-1, p. 59)

The Regional Water Quality Council in conjunction with State administrative agencies and the U.S. Army Corps of Engineers, review and comment upon permits issued under Section 404, as amended by Section 67 of the Clean Water Act of 1977, with particular concern addressed to the disposal of dredge and fill materials and implementation of best management practices in watersheds tributary to the site. (Appendix B-1, p. 59)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Petroleum Extraction

It is the recommendation of the Water Quality Management Program that:

Salt water intrusion into ground water supplies, due to oil and gas extraction has been noted as a possible problem in the Region. The precise nature and magnitude of this problem is currently under study by the Illinois Environmental Protection Agency and the Illinois Department of Mines and Minerals. It is recommended that the Regional Water Quality Council continue to monitor the State study and to coordinate with the appropriate regulatory agencies, to take such actions as may be required. (Appendix B-1, p. 22)

Petroleum exploration permits receive review, delineating how those activities would affect water quality. (Appendix B-1, p. 22)

The Regional Water Quality Council, in cooperation with the Soil and Water Conservation Districts, and the Regional Planning Commissions, shall inventory and categorize areas of salt water damage and assess the impact of these areas on water quality, in terms of increased erosion and areas of land barren of vegetation. Special erosion control measures may be needed in Hamilton, Saline, Franklin, and Jefferson Counties. (Appendix B-1, pages 21-22)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Silviculture

It is the recommendation of the Water Quality Management Program that:

Although the impact of silvicultural activities on the water quality of the region is considered to be small, the U.S. Forest Service be designated the management agency for silvicultural activities within the Shawnee National Forest. The major thrust of management practices in

the national forest area should be toward education and control/enforcement activities that will assure (1) that access roads be constructed in such a way that acreage of forest cover removed, road bed and ditch erosion, and numbers of stream crossings are all held to a minimum; (2) that over-harvesting of stream-side management zones not be permitted; (3) that stream-side management zones be maintained along all streams; and (4) that recreational vehicle trails be prohibited in stream-side management zones and be permitted to cross streams only at stream crossing roads. The management of silvicultural activities shall promote the recommended Best Management Practices. (Appendix B-1, pages 30-32)

The County Soil and Water Conservation Districts enter into inter-local agreements with the Illinois Division of Forestry, with respect to silvicultural management activities, in those areas within the counties which are not under federal or state ownership. (Appendix B-1, p. 32)

Appropriate activities include educational and voluntary programs related to the recommended Best Management Practices. The major thrust of management practices should be as in items (1) through (4) above. Only selective harvesting, carefully planned to minimize forest floor disturbance, should occur in stream-side management zones. Mandatory programs (based upon available Federal and State regulatory mechanisms) will be considered, on the basis of ineffective voluntary activities. (Appendix B-1, pages 30-32)

Annual Progress Reviews shall be conducted by the Regional Water Quality Council.

Scheduling and Costs of Management Recommendations

The management recommendations included in Chapter 1 (Regional Water Quality Council) and in Chapter 3 (Functional and Management Recommendations) have scheduling and costs as projects in the following table.

Table 5

SOUTHERN ILLINOIS 208 WATER QUALITY PROGRAM
SUMMARY OF PROGRAM COSTS
(Millions of Dollars, 1978)

	Phase I 1978-1983 $	Phase I 1978-1983 Funding Source	Phase II 1984-1995 $	Phase II 1984-1995 Funding Source	Total $	Total Funding Source
Mining						
(a) Reclamation	(a) 4.5	Ill. Abandoned Mine Lands Council, Office of Surface Mining	6.7	Ill. Abandoned Mine Lands Council, Office of Surface Mining	11.2	Ill. Abandoned Mine Lands Council, Office of Surface Mining
(b) Demonstration Projects	(b) 1.4		3.6		5.0	
Total	5.9		10.3		16.2	
Point Sources	42.49	USEPA Grant	5.23	USEPA Grant	47.72	USEPA Grant
Municipal Wastewater Treatment Systems	3.57	IEPA Grant	0.00	IEPA Grant	3.57	IEPA Grant
	.42	FmHA Grant	0.00	FmHA Grant	.42	FmHA Grant
	3.76	FmHA Loan	1.75	FmHA Loan	5.51	FmHA Loan
	10.81	Local	0.00	Local	10.81	Local
Total	61.05		6.98		68.03	
Residual Wastes	Direct Program Costs Included Elsewhere		Direct Program Costs Included Elsewhere		Direct Program Costs Included Elsewhere	
Agriculture	4.93	USDA/SCS/ASCS	6.96	USDA/SCS/ASCS	11.89	USDA/SCS/ASCS
Erosion Control	.87	Local (Private)	1.74	Local (Private)	2.61	Local (Private)
Total	5.80		8.70		14.50	
Rural Sewage	.10	Ill. Dept. of Public Health	.4	Ill. Dept. of Public Health	.50	Ill. Dept. of Public Health
(Non-structural Controls)	.51	Local	1.8	Local	2.31	Local
Total	.61		2.2		2.81	
High Quality Water	Direct Program Costs Included Elsewhere		Direct Program Costs Included Elsewhere		Direct Program Costs Included Elsewhere	
Other Non-Point Sources	Direct Program Costs Included Elsewhere		Direct Program Costs Included Elsewhere		Direct Program Costs Included Elsewhere	
Construction						
Flurospar Mining						
Hydrographic Modifications						
Petroleum Extraction						
Silviculture						
Management	.586	USEPA			.586	USEPA
Continuing Planning Process	.08	Other Federal Agencies	1.53	Federal Agencies	1.61	Other Federal Agencies
	.17	IEPA	.61	IEPA	.78	IEPA
	.105	Other State Agencies	.38	Other State Agencies	.485	Other State Agencies
	.09	Local	.30	Local	.39	Local
Total	1.031		2.82		3.851	
Totals	56.766	Federal	22.17	Federal	78.936	Federal
	5.345	State	4.99	State	10.335	State
	12.28	Local	3.84	Local	16.120	Local
Total	74.391		31.00		105.391	

Chapter 4

STRATEGIES FOR PLAN IMPLEMENTATION

The Regional Water Quality Council is scheduled to be operational by August, 1979. During the interim period between November 30, 1978 and August, 1979, the 208 management agencies will be holding a series of organizational meetings to establish the Council's final structure, familiarize itself with the plan requirements, establish its institutional arrangements with the planning commissions, and begin the budgeting and allocation process to develop local funding to support the continuing planning process.

The method of financing the continuing planning process by the Council is to seek financial support from the 208 designated agencies. Based on projected budgets for identified work elements contained in the Illinois five-year strategy, the Council's locally generated share will approximate $23,250 (FY 79); $30,750 (FY 80); $50,000 (FY 81); $47,500 (FY 82); and $43,750 (FY 83).

Per capita contributions at the rate of $.05 by each general purpose government that is a 208 management agency should generate approximately $20,480, and when combined with river conservancy districts and other special districts, a total of about $27,800 may be available annually. Efforts may be initiated to acquire approximately an equal amount of funds from the state legislature. Other sources of financial assistance may be available through the provision of in-kind services by colleges, universities, private industry, or other state agency sources.

The interim period for operationalizing the Council is purposely scheduled in anticipation of receiving notice of designation and certification of the Plan. Pragmatically, local 208 management agencies will require some decisions from the state and federal cognizant agnecies prior to creating a new organization and attempting to commit local funds.

More than a few 208 management agencies are in some stage of implementing various aspects of the plan. Counties are most active in developing or refining private sewage disposal ordinances, while a few (Jackson, Williamson) are either revising or considering subdivision ordinances. It is anticipated that all counties will have subdivision ordinances by 1982. A joint health department, or health services, may be operational in Jefferson and Hamilton Counties by 1981. Zoning ordinances by counties is not anticipated by 1983 except perhaps for Jackson County. However, the institution of health ordinances (private sewage) and subdivision standards by all counties will effectively address most rural sewage problems.

Municipalities, especially in the growth corridors of Murphysboro-Marion-Mt. Vernon and Harrisburg-Eldorado, are anticipated to have enacted zoning and subdivision regulations up to their respective mile and one-half limits by 1981. The enactment of non-structural controls in the urban fringe areas may be viewed as a first phase of extending such controls county-wide.

Model zoning and subdivision ordinances have been prepared for use by these two groups of management agencies, i.e., counties and municipalities. Previous experience by the planning commissions indicates that it takes approximately two to three years for a subdivision ordinance to be adopted by a county. For municipalities, the length of time for localizing a model ordinance and passage takes between one and two years.

The point source control issues faced by the municipal management agencies are more complex, and require substantive financial commitments by the agency in developing wastewater collection and treatment systems. The principal source of such funds are a combination of revenue bonds coupled with federal-state loan and grant funds. In most instances, the capital construction outlays and support of the operation and maintenance costs are recovered through user fees.

Plan implementation of municipal facilities, either through rehabilitation or new construction, is scheduled to occur at a relatively rapid pace through 1983. Based on comments from IEPA staff, 62 of the 81 facility systems should receive federal or state funding assistance by 1983, and constitutes the first phase (1978-1983) of plan implementation. The remaining facilities are scheduled to receive grant funding consideration at a considerably slower pace

in the second phase (1984-1995) of the plan implementation. Details of management agency operating and financing strategies are contained in the Step 1 - 201 facility plans prepared for each municipality, and are addressed in Appendix A-2, Municipal Waste Water Needs and Capital Scheduling.

External influences do exist which may affect the scheduling of municipal point source control implementation. These influences may be felt through changes in the policy positions taken by both IEPA and USEPA in terms of new priorities on levels of funding assistance and scheduling. Such changes would be noted in the annual update process maintained by the Regional Water Quality Council.

Soil and water conservation districts responsible for erosion control management activities within selected areas are scheduled to have approximately 50% of the land owners of critical erosion lands participating in the voluntary control program by 1983. First and second year efforts by these management agencies include a further delineation of problem areas and the development of interagency agreements between the Agricultural Stabilization and Conservation Service and the Cooperative Extension Service.

Part of the plan implementation scheduling may be disrupted, and indeed cause a change in federally preferred erosion control management agencies, as a result of the conflicts between positions of the U.S. Congress and the U.S. Department of Agriculture. These external forces appear beyond the control of the 208 program.

Current implementation activities of the Plan include the selection of the erosion control management agencies' representatives to a ten-county committee. This same committee will constitute the membership of the erosion control agencies to the Regional Water Quality Council.

The Regional Water Quality Council is proposed to meet at least every two months to review the progress of each 208 management agency. The management agencies, through their participation on the Council, will be able to continually assess implementation schedules and devise corrective strategies. Input would also occur through the advisory committee structure and the planning commissions. (see Chapter 1).

Accountability of the actions of the Council and its management agency constituency occurs in three distinct ways. The Council is accountable for its actions to its cognizant agencies as well as to its collective membership. The public, through the ongoing citizen participation program, will constitute an audience which will also require Council accountability for its actions. This will be ensured through public membership on the advisory committees, public hearings and the public information process.

Individual management agencies will be subjected to Council evaluation concerning the status of plan implementation. It is anticipated that normal review and liaisonal activities by the cognizant agencies will result in performance expectations which will need to be met by the management agencies. In addition, citizen participation activities will focus attention on the rate of plan implementation.

In summary, the areawide continuing designation, the designation of the management agencies, and the blending of the agencies responsible for plan implementation in the Areawide Water Quality Council will result in an ongoing water quality planning, monitoring and evaluation process in which achievements can be measured against mutually agreed upon local govermentally-developed performance standards.